WEED ABSTRACTS

Combined Table of Contents

and

Annual Indexes

Volume 12

OF ENTOMOLOGY
LIBRARY
- 6 JUL 1978

WEED ABSTRACTS

Vol. 12, 1963

AND

ANNUAL INDEXES

Prepared by

AGRICULTURAL RESEARCH COUNCIL
WEED RESEARCH ORGANIZATION
BEGBROKE HILL, KIDLINGTON, OXFORD, ENGLAND

Published by

COMMONWEALTH AGRICULTURAL BUREAUX
FARNHAM ROYAL, BUCKS, ENGLAND

© Commonwealth Agricultural Bureaux, 1964

Weed Abstracts is prepared by the Weed Research Organization of the Agricultural Research Council under the direction of E. K. Woodford, O.B.E., Ph.D., and published every two months on subscription by the Commonwealth Agricultural Bureaux.

Editor P. J. Boyle

Abstractors Miss J. L. Mayall
W. L. Millen

Indexer/Librarian Mrs. B. R. Burton

The object of *Weed Abstracts* is to provide a comprehensive and up-to-date coverage in abstract form of the world literature on weeds, weed control and allied subjects. To this end, a wide range of journals, annual reports, bulletins and other publications are regularly searched.

To ensure that papers are abstracted and their contents given notice in *Weed Abstracts* with the minimum of delay, authors are invited to send the Editor copies of any papers they write immediately on publication.

Technical literature of all kinds published by commercial organizations is also required.

All material sent for abstracting and any correspondence concerned with purely technical matters or with the contents of *Weed Abstracts* should be addressed to:

The Information Section,

A.R.C. Weed Research Organization,

Begbroke Hill, Kidlington, Oxford, England.

PRINTED BY LAMPORT GILBERT AND CO. LTD., READING, ENGLAND

Abbreviations

A list of abbreviations and common names of herbicides is given on the inside back cover.

ac	acre	h.p.	horse power	ppm.	parts per million
a.e.	acid equivalent	hr.	hour(s)	post-em.	post-emergence
a.i.	active ingredient	in.	inch	pre-em.	pre-emergence
atm.	atmosphere	kg	kilogram	p.s.i.	pounds per square inch
bu	bushel	l.	litre	sec.	second
cm	centimetre	lb	pound	sq.	square
cwt	hundredweight	m	metre	v/v	volume/volume
d.b.h.	diameter at breast height	m^2	square metre	w/v	weight/volume
diam.	diameter	min.	minute	w/w	weight/weight
ft	foot	ml	millilitre (cc)	>	more than
g	gramme	mm	millimetre	<	less than
gal	gallon	m.p.h.	miles per hour	#	pounds per acre
ha	hectare	oz	ounce	±	with or without
hkg	hectokilogram	%	percent(age)		

Languages

An initial capital denotes the language of the paper, a small letter the language of the summary.

A.	Afrikaans	Fl.	Flemish	Nor.	Norwegian	Span.	Spanish
Cz.	Czechoslovakian	Fr.	French	P.	Polish	Sw.	Swedish
Dan.	Danish	G.	German	Por.	Portuguese	Turk.	Turkish
Du.	Dutch	H.	Hungarian	Ro.	Romanian		
E.	English	It.	Italian	R.	Russian		
Fin.	Finnish	Jap.	Japanese	S.-Cr.	Serbo-Croat		

Where there is more than one author to a paper, the address given refers only to the first and is normally the address where the work was carried out.

Where abstracts have been taken in their entirety from other abstract journals, the acknowledgement follows the abstract thus: *Herb. Abstr.* **2:** 163; where a modified version of the abstract is used, the acknowledgement is preceded by the word "From", e.g. From *Biol. Abstr.* **2:** 294.

Unless otherwise stated, rates of application for growth-regulator herbicides such as 2,4-D, MCPA, fenoprop, dalapon, the benzoics, etc. are given as the acid equivalent. Rates for other herbicides such as the ureas, carbamates, triazines, etc. are given as the active ingredient. Rates for diquat and paraquat refer to the cation, only.

List of common names and abbreviations used for herbicides in Weed Abstracts

An asterisk (*) signifies approval by the British Standards Institution (BSI)
A dagger (†) signifies approval by the Weed Society of America (WSA)
Where the name approved by the WSA differs from that approved by the BSI, the WSA name is given in brackets after the chemical name.

acrolein†	acrylaldehyde
ametryne*†	4-ethylamino-6-isopropylamino-2-methylthio-1,3,5-triazine
amitrole†	3-amino-1,2,4-triazole
amitrole-T	3-amino-1,2,4-triazole + NH_4SCN
AMS†	ammonium sulphamate
atraton*	4-ethylamino-6-isopropylamino-2-methoxy-1,3,5-triazine (atratone)
atrazine*†	2-chloro-4-ethylamino-6-isopropylamino-1,3,5-triazine
barban*†	4-chlorobut-2-ynyl *N*-(3-chlorophenyl)carbamate
BiPC	butinol *N*-(3-chlorophenyl)carbamate
bromacil	5-bromo-3-*s*-butyl-6-methyluracil
bromoxynil*	4-hydroxy-3,5-dibromobenzonitrile
buturon*	*N′*-(4-chlorophenyl)-*N*-isobutinyl-*N*-methylurea
CDAA†	*NN*-diallylchloroacetamide
CDEA†	*NN*-diethylchloroacetamide
CDEC	2-chloroallyl *NN*-diethyldithiocarbamate
chloramben*	3-amino-2,5-dichlorobenzoic acid (amiben)
chlorazine*†	2-chloro-4,6-bisdiethylamino-1,3,5-triazine
chlordane*†	1,2,4,5,6,7,10,10-octachloro-4,7,8,9-tetrahydro-4,7-methyleneindane
chloroxuron*	*N′*-4-(4-chlorophenoxy)phenyl-*NN*-dimethylurea
chlorpropham*	isopropyl *N*-(3-chlorophenyl)carbamate (CIPC)
4-CPA*†	4-chlorophenoxyacetic acid
2,4-D*†	2,4-dichlorophenoxyacetic acid
dalapon*†	2,2-dichloropropionic acid
dazomet*	3,4,5,6-tetrahydro-3,5-dimethyl-2-thio-2*H*-1,3,5-thiadiazine (DMTT)
2,4-DB*†	4-(2,4-dichlorophenoxy)butyric acid (4-(2,4-DB))
DCU†	dichloral urea
2,4-DEP†	tris-(2,4-dichlorophenoxyethyl)phosphite
2,4-DES*	2-(2,4-dichlorophenoxy)ethyl hydrogen sulphate (sesone)
desmetryne	4-isopropylamino-6-methylamino-2-methylthio-1,3,5-triazine
di-allate*	*S*-2,3-dichloroallyl *NN*-di-isopropylthiolcarbamate
dicamba*	3,6-dichloro-2-methoxy benzoic acid
dichlobenil*†	2,6-dichlorobenzonitrile
dichlone*†	2,3-dichloro-1,4-naphthaquinone
dichlorprop*	*dl* 2-(2,4-dichlorophenoxy)propionic acid (2-(2,4-DP))
dicryl†	*N*-(3,4-dichlorophenyl)methacrylamide
dimexan*	di(methoxythiocarbonyl)disulphide
dinosam*	2-(1-methyl-*n*-butyl)-4,6-dinitrophenol (DNAP)
dinoseb*	2-(1-methylpropyl)-4,6-dinitrophenol (DNBP)
diphenamid†	*NN*-dimethyldiphenylacetamide
diphenatrile†	diphenylacetonitrile
dipropalin†	2,6-dinitro-*NN*-dipropyl-4-methylaniline
diquat*†	9,10-dihydro-8a,10a-diazoniaphenanthrene-2*A*
diuron*†	*N′*-(3,4-dichlorophenyl)*NN*-dimethylurea
DMPA†	*O*-(2,4-dichlorophenyl) *O′*-methyl *N*-isopropyl phosphoroamidothioate
DNOC*	2-methyl-4,6-dinitrophenol (DNC)
endothal*†	7-oxabicyclo[2,2,1]heptane-2,3-dicarboxylic acid
EPTC†	*S*-ethyl *NN*-dipropylthiolcarbamate
erbon†	2-(2,4,5-trichlorophenoxy) ethyl 2,2-dichloropropionate
EXD†	di(ethoxythiocarbonyl) disulphide
fenac†	2,3,6-trichlorophenylacetic acid
fenoprop*	*dl* 2-(2,4,5-trichlorophenoxy)propionic acid (silvex)
fenuron*†	*NN*-dimethyl-*N′*-phenylurea
fenuron-TCA†	*NN*-dimethyl-*N′*-phenyluronium trichloroacetate
ipazine*†	2-chloro-4-diethylamino-6-isopropylamino-1,3,5-triazine
IAA	indolyl acetic acid
ioxynil	4-hydroxy-3,5-di-iodobenzonitrile
isocil*†	5-bromo-3-isopropyl-6-methyluracil
linuron*†	*N′*-(3,4-dichlorophenyl)-*N*-methoxy-*N*-methylurea
MCPA*†	4-chloro-2-methylphenoxy acetic acid
MCPB*†	4-(4-chloro-2-methylphenoxy)butyric acid
mecoprop*	*dl* 2-(4-chloro-2-methylphenoxy)propionic acid (2-(MCPP))
metham*	*N*-methyldithiocarbamic acid (SMDC)
MH†	1,2,3,6-tetrahydro-3,6-dioxopyridazine
monolinuron*	*N′*-(4-chlorophenyl)-*N*-methoxy-*N*-methylurea

monuron*†	*N′*-(4-chlorophenyl)-*NN*-dimethylurea
monuron-TCA†	*N′*-(4-chlorophenyl)-*NN*-dimethyluronium trichloroacetate
NAA	naphthyl acetic acid
naptalam*	*N*-1-naphthylphthalamic acid (NPA)
neburon*†	*N*-butyl-*N′*-(3,4-dichlorophenyl)-*N*-methylurea
norea†	3-[5-(3a,4,5,6,7,7a-hexahydro-4,7-methanoindanyl)]-1,1-dimethylurea
OMU	*N′* cyclo-octyl-*NN*-dimethylurea (cycluron)
paraquat*†	1,1′-dimethyl-4,4′-bipyridylium-2*A*
PCA	5-amino-4-chloro-2-phenyl-3-pyridazinone
PCP†	pentachlorophenol
PEBC†	*S*-propyl *N*-butyl-*N*-ethylthiolcarbamate
prometon*	4,6-bisisopropylamino-2-methoxy-1,3,5-triazine (prometone)
prometryne*†	4,6-bisisopropylamino-2-methylthio-1,3,5-triazine
propanil†	*N*-(3,4-dichlorophenyl) propionamide
propazine*†	4,6-bisisopropylamino-2-chloro-1,3,5-triazine
propham*	isopropyl *N*-phenylcarbamate (IPC)
proxan*	*M*-isopropyl xanthate (IPX)
simazine*†	4,6-bisethylamino-2-chloro-1,3,5-triazine
simeton*	4,6-bisethylamino-2-methoxy-1,3,5-triazine (simetone)
simetryne*†	4,6-bisethylamino-2-methylthio-1,3,5-triazine
SMA	sodium monochloroacetate
solan†	*N*-(3-chloro-4-methylphenyl)-2-methylpentanamide
swep†	methyl-3,4-dichlorophenylcarbamate
2,4,5-T*†	2,4,5-trichlorophenoxyacetic acid
2,4,5-TB	4-(2,4,5-trichlorophenoxy)butyric acid (4-(2,4,5-TB))
2,3,6-TBA†	2,3,6-trichlorobenzoic acid
TCA†	trichloroacetic acid
2,4,5-TES†	2-(2,4,5-trichlorophenoxy)ethyl hydrogen sulphate
tri-allate*	*S*-2,3,3-trichloroallyl *NN*-di-isopropylthiolcarbamate
tricamba*	3,5,6-trichloro-2-methoxy benzoic acid
trietazine*†	2-chloro-4-diethylamino-6-ethylamino-1,3,5-triazine
trifluralin†	2,6-dinitro-*NN*-dipropyl-4-trifluoromethylaniline
trimeturon*	*N*-(4-chlorophenyl)-*O*-*N*-trimethylisourea

SUMMARY OF CONTENTS

	Pages
ANNUAL FIELD CROPS	
General	1, 55, 121, 165, 219, 271
Cereals	3, 57, 122, 167, 220, 273
Legumes	6, 65, 128, 170, 223, 276
Root crops	7, 66, 129, 171, 224, 277
Oil and fibre crops	9, 71, 130, 177, 226, 278
Other crops	— 71, — 177, — 280
GRASSLAND AND HERBAGE CROPS	
Cultivated grasslands and pastures	10, 72, 131, 178, 226, 281
Legumes	10, 76, 132, 179, 228, 282
Rangelands and rough grazings	— 78, 132, 180, 229, 283
VEGETABLE CROPS	11, 78, 133, 180, 230, 284
ORNAMENTALS	
Flowers, shrubs and trees	13, 84, 137, 185, 235, 287
Lawns and turf	16, 86, 137, 186, 235, 289
FRUIT CROPS	
Small fruits and vines	17, 87, 140, 187, 235, 290
Tree fruits	18, 91, 141, 191, 237, 291
PLANTATION CROPS	19, 93, 141, 192, 239, 292
FORESTS	24, 94, 143, 193, 241, 295
WOODY WEEDS	28, 98, 144, 195, 242, 297
AQUATIC WEEDS	31, 99, 146, 196, 244, 301
OTHER WEEDS	
Miscellaneous weeds	34, 102, 146, 197, 245, 304
Non-agricultural weed control	34, 105, 150, 202, 249, 308
Poisonous weeds	— 105, 151, — 250, 309
BIOLOGY	39, 105, 151, 203, 251, 310
PHYSIOLOGY	42, 109, 154, 205, 256, 315
HERBICIDES	
Chemistry and properties	46, 111, 156, 210, 263, 322
Toxicology and residues in plants	47, 113, 159, 213, 266, 327
Soil relations	48, 114, 159, 214, 266, 329
APPLICATION AND MACHINERY	49, 116, 161, 215, 267, 331
MISCELLANEOUS	51, 118, 162, 216, 268, 334
AUTHOR INDEX	337
SUBJECT INDEX	347
SPECIES INDEX	365

AUTHOR INDEX

Åberg, B., 1082, 1099
Abney, T. S., 809
Acosta-Matienzo, A., 936
Adams, W. E., 1184
Adams, W. M., 1678
Adamson, R. M., 986, 1273, 1892
Addicott, F. T., 1394
Adlakha, D. A., 1695
Adsuar, J., 736, 1288
Aebi, H., 829
Aelbers, E., 627, 1497
Agamalian, H., 67, 1591
Agricultural Aviation, 312
Agricultural Chemicals, 602, 1882
Agricultural Research, 177, 813, 1522
Agulhon, R., 864
Ahrens, J. F., 456, 715, 1587, 1727
Akesson, N. B., 1878
Alberico, F. J., 1309
Alden, M. R., 960
Alder, E. F., 4, 65, 438, 713
Aldhous, J. R., 313
Aldred, J. R., 1715
Aleksandrov, M. A., 903
Alexandri, A. V., 473
Allan, F. J., 1815
Allan, G. G., 1815
Allen, F. C., 1042
Allen, M. G., 128, 743
Allen, R. J., 1722
Allen, W. S., 259, 1792
Allen, W. W., 1693
Alley, H. P., 687, 1204
Al'tergot, V. F., 1180
Althaus, R. E., 694, 703
Alves, A., 1572
Aly, O., 589
Amann, M., 780, 886, 1498
Amaral, J. K., 1709
Amchem Products, Inc., 849
American Nurseryman, 1259
American Vegetable Grower, 70, 689
Amling, H. J., 72, 1274, 1529, 1865
Amsden, R. C., 296, 599, 600
Anderson, D. J., 214
Anderson, D. T., 1460
Anderson, P. E., 1656
Anderson, S. A., 704
Andreae, B., 15
Andrews, H., 29, 1185, 1212
Anghel, G., 221
Antognini, J., 294, 571, 1206
Aono, L., 1441
Applegate, H. G., 256
Appleton, A. R., 883
Arias, P., 422
Armsby, W. A., 656, 1520
Army, T. J., 284
Arthur, T. J., 416
Arvier, A. C., 1616
Ascheman, R. E., 368, 644, 664, 776
Ashton, F. M., 288, 1416, 1794
Augsten, H., 1804
Austen, V. C., 998
Austenson, H. M., 682, 1510, 1546
Australia, Dep. Agric. & Stock, Queensland, 799
Avermaete, M., 587
Awasthi, O. P., 669

Bache, C. A., 1121
Bachthaler, G., 377, 380, 662
Baerwald, U., 1456
Bagnall, B. H., 925, 926, 927
Bahčevanova, M. P., 1537
Bailie, J. H., 1216
Baissac, A., 490
Baker, C., 933
Baker, H. K., 405
Baker, J. B., 257, 1408
Baker, R. S., 1409
Baldwin, B. C., 1101
Ball, W. S., 320
Bandt, H. J., 1137
Banting, J. D., 1044
Bará Temes, 198
Baraldi, G., 1151
Bardinskaia, M. S., 251
Bargioni, G., 1264
Barloy, J., 1432
Barrette, J. P., 580
Barrie, A. G., 789
Bärring, U., 496
Barron, J. R., 873
Bartels, W., 1908
Bartholomay, G., 1580
Barton, L. V., 1355
Baskakov, Yu. A., 569
Basler, E., 1788
Batkay, F., 722
Bawcom, R., 954
Bay, C. E., 897
Bayer, D. E., 272
Bayer, G., 1152, 1234, 1238, 1246, 1459
Beale, C. L., 1475
Beasley J. L. 796
Beasley P. G. 1670 1676
Beatty R. H. 1114
Beaty E. R. 28
Beauchesne G. 1775
Beaven G. F. 1855
Beck, T. V., 1045
Becker, A., 342, 1525
Becker, C. F., 1204
Beech, C. R., 981
Beeson, F., 726
Beevers, L., 1402
Behrens, R., 350, 1781
Beinhauer, H., 376, 887, 1181, 1345
Beland, J. W., 156
Belgium, Rijkslandbouwhogeschool, Gent, 337, 338, 339, 340, 344, 347, 348, 362, 363, 364, 374, 383, 386, 387, 394, 395, 396, 398, 399, 400, 404, 432, 454, 474, 497, 506, 523, 537, 538, 552
Bel'kov, V. P., 127
Bell, H. K., 725, 1559
Bell, W. L. B., 130
Belorussova, A. D., 1551
Bencze, K., 1839
Benedict, C. M., 1877
Bennett, J. M., 142, 606
Berg, A., 1076
Berge, O. I., 1886, 1887, 1888
Bernier, G., 227
Bertrand, A. R., 1494
Best, K. F., 1367
Bevenue, A., 1447
Bezuglov, V. G., 1509
Bhan, V. M., 1690
Bhardwaj, R. B. L., 22, 735
Bibbey, R. O., 197
Bing, A., 457, 711, 712
Bingeman, C. W., 279, 1435
Bingham, S. W., 1696
Binns, W., 1718
Bjerkestrand, E., 959, 1451
Blaauw-Jansen, G., 1387, 1430
Black, M. K., 1400, 1783
Blackburn, R. D., 172, 1664, 1672, 1675, 1833
Blackhurst, H. T., 1894
Blackman, G. E., 1094, 1395
Blake, G. R., 1173
Blanford, R. H., 1308
Bleasdale, J. K. A., 1231
Blood, T. F., 59, 421
Boa, W., 866
Bodi, I., 1010
Boeker, P., 614
Boerema, E. B., 902
Bolinger, E. M., 1657
Bollen, W. B., 856
Bollmann, W., 1479
Bolster, C. L., 511
Bolton, J. L., 57
Bond, C. E., 850
Bond, R. S., 753
Bondarenko, D. D., 776
Bonnemann, A., 495, 854
Booth, G. H., 204
Borasio, L., 1195
Borger, P., 209
Börner, H., 564
Bornkamm, R., 543, 544
Boškovic, M., 1531
Boubals, D., 728
Boullard, B., 140
Bovey, R. W., 1485
Bower, D. R., 1023
Bowser, P. H., 1242
Box, B. H., 1636
Boyce, J. H., 87
Boyce, W. R., 965, 974
Boyle, P. J., 1172
Bradley, M. V., 1404
Brady, N. C., 1182
Bragonier, W. H., 1736
Bramley, P., 881
Brandes, G. A., 35
Brannaman, B. L., 1786
Breukink, H. J., 1721
Briggs, W. R., 249
Brinkman, B., 1497
British Columbia Dep. Agric., 1150
British Weed Control Council, 1462
Broadhead, D. M., 483
Brookes, R. F., 1116
Brown, H. F., 1639
Brown, L. C., 53, 1201
Brown, N. J., 1174
Brown, R., 1423, 1801
Bruinsma, J., 26, 1383
Brummund, M., 1141
Bruns, V. F., 188
Bryant, J. R., 1179
Bucha, H. C., 278
Buchanan, G. A., 1861
Buchholtz, K. P., 1428, 1680, 1737, 1753, 1778, 1795, 1857
Buck, W. B., 1718
Budrick, R., 512
Buess, E., 1388
Bullen, E. R., 634

Bulletin de la Société Royale Forestiére de Belgique, 208
Bullock, W. R., 1641
Bunger, W. C., 1269
Burchfield, H. P. 578
Burdick G. E., 514
Burghausen, R., 1208, 1521
Burgis, D. S., 1578
Burke, J., 1844
Burke, J. A., 462
Burns, P. Y., 308, 1636
Burnside, O. C., 358, 359, 369, 673, 685, 1485, 1862, 1889
Burschel, P., 591, 592, 854
Burström, H., 1802
Burt, E. O., 82
Burton, J. D., 1020
Burykin, D. A., 442
Butters, B., 1623
Byass, J. B., 1455
Bylterud, A., 934
Byrdy, S., 1140
Byrne, T. G., 74

Caldicott, J. J. B., 41, 925, 927
Callahan, L. M., 1589
Camargo, W. de A., 1350
Cammilli, A., 1539
Campbell, H. H., 86
Campbell, J. C., 390
Campbell, M. H., 1039, 1325, 1326
Canada,
Dep. Agric., 268
Dep. Agric., Res. Branch, 756
Dep. Agric., Res. Sta., Summerland, 1272
Min. Agric., Province Quebec, 1491
Nat. Weed Committee, E. Sect., 6, 1160
Cane Growers' Quarterly Bulletin, 1614
Canny, M. J., 1767
Canode, C. L., 55, 1223
Cantele, A., 373
Cantladze, M. N., 1621
Capelle, E. J., 1707
Caplenor, D., 1366
Carder, A. C., 419, 527, 765, 766, 772, 1038, 1699, 1893
Carey, W. F., 1838
Carpenter, K., 1817
Carson, R. B., 846, 1129
Carstens, M. W., 682
Carvell, K. L., 754
Casanova, A., 693, 923
Cassady, J. T., 159
Cassil, C. C., 576
Castelfranco, P., 262, 1859
Castellanos, P. C., 759
Castro, J. A., 1120
Cathey, G. W., 53
Cathey, H. M., 1164
Catinot, R., 137
Cavé, A. J., 769
Cavers, P. B., 804
Caballos Jimenez, A., 198
Chacravarti, A. S., 485
Chamberlain, E. B., 865
Chambers, G. M., 1620
Champagnat, M., 224
Chancellor, R. J., 166
Chapman, L. S., 1613
Chappell, W. E., 503, 1426, 1603, 1639, 1645
Charette, L. A., 540
Charles, A. H., 412, 413
Charrot, J., 183
Chase, R. W., 355
Chaugule, B. A., 13
Cherry, M., 1468
Chubb, W. O., 660, 906
Church, B. M., 622, 869
Churchill, B. R., 1573
Chyba, W., 243
Cialone, J. C., 436, 575, 695, 1152, 1234, 1238, 1246, 1459
Ciferri, R., 1006
Ciobanu, P., 49
Clagett, C. O., 824
Clarke, G. G., 1436
Clarke, H., 1153, 1890, 1891
Clarke, H. G., 928
Clatworthy, J. N., 1369
Clegg, D. E. H., 1623
Cleland, R., 1084
Cobb, R. D., 1378
Cockshull, K. E., 832
Coggins, C. W., 1786
Coiteux, J. S. F., 45
Colby, S. R., 1420, 1798
Cole, M. J., 1365
Cole, R. H., 357, 370, 371
Collings-Wells, L. J., 938
Collins, H. A., 390
Collis-George, N., 1903
Colville, W. L., 359, 369
Condon, R. J., 1250
Cook, C. D. K., 230
Cook, R. N., 716
Cooke, G. W., 1463
Coppel, H. C., 557
Corbetta, G., 1191
Cornman, J. F., 714
Cortell, J. M., 510
Costel, G. L., 1204
Cott, A. E., 721
Cotter, D. J., 971
Cotterell, R., 415
Coulson, D. M., 1119
Coupland, R. T., 397, 525, 526, 773, 774, 775, 777, 782, 783, 784, 1057, 1368
Courshee, R. J., 863
Courtney, W. D., 1546
Cowart, L. E., 1214
Cox, J. E., 998
Cox, T. I., 932
Craet, A., 153
Crafts, A. S., 252, 319, 604, 822, 858
Cramp, K. V., 957
Crandall, P. C., 682, 1265, 1510
Crawford, R. F., 1117
Crops & Soils, 104, 307, 798, 1681
Cross, C., 1552
Cross, C. E., 471
Cross, M. W., 1226, 1530
Crossan, D. F., 1834
Crossland, N. O., 1678
Crowdy, S. H., 981
Crowe, A. D., 1809
Cunningham, I. J., 1131
Cupery, W. E., 278
Curtis, L. E., 704
Curtis, O. F., 478
Curtis, R., 571
Cussans, G. W., 43, 663, 919
Cuturilo, S., 1523
Dabral, S. N., 164
Dadd, C. V. T., 622, 880, 890
Daiber, C., 835
Dakshindas, D. G., 246
Dallyn, S. L., 391, 393, 447, 1239
Dal Porto, N. J., 607
Dalrymple, A. V., 1788
Dalton, R. L., 583
Damigella, P., 1095
Danielson, L. L., 1458
Daoud, H. N., 841
Darrow, R. A., 751, 1638
Darter, I. E., 275, 574, 1826
Darwin, R. K., 1034
Das, B. C., 1513
da Silva, F. I. R., 61
Davey, B. G., 1903
David, R., 349
Davidson, A., 1079
Davidson, H., 709, 1559
Davidson, T. R., 1502
Davies, G. E., 1227
Davies, W., 407
Davis, D. E., 186, 261, 1793
Davis, F. S., 680, 1485, 1698
Davis, J. T., 1853, 1854
Davis, R. G., 50, 292
Davis, R. K., 1132
Davison, J. G., 333
Davison, R. M., 1091
Dawkins, H. C., 163
Dawson, J. H., 9, 1684
Day, B. E., 290, 480, 1143, 1278, 1452, 1610
de Beni, P. V., 445
de Boer, W., 795
Begge, D., 33
Delahunty, E., 1052
de la Sota, E. R., 812
Delleré, R., 112
Delp, C. J., 1823
Demetriades, S. D., 734
Demoranville, I. E., 471
de Moutier Aldao, E. M., 1120
Denmark, Statens Forsøgsvirksomhed i Plantekultur, 426, 876
Dermine, E., 476, 477, 1602
Derscheid, L. A., 401, 402, 770, 1828
Dési, I., 1849
Deters, R., 842
Detroux, L., 433, 476, 477, 921
Deutsch, D. B., 1859
de Vette, A. A., 1825
Dewey, A. E., 878
de Wit, C. T., 542
Dewlen, J. L., 306
de Zeeuw, D. J., 1098
Diehl, O., 1873
Dillard, G. E., 809
d'Ille, H., 923
Dingwall, A. R., 945, 1028
Dinkel, D. H., 657, 670, 699, 969, 970, 993
Dinoor, A., 555
Ditmer, W. P., 1735
di Vitto, G., 586
Dodd, A. P., 199
Dodge, M., 954
Doersch, R. E., 1737
Dominik, T., 140
Donahue, L., 205
Donnalley, W. F., 392, 566, 977
Dormal, S., 847
Dosen, R. C., 1019
Dostál, R., 1092

Douglas, G., 414, 981
Dow Chemical Co., 1434
Dowler, C. C., 1188
Drake, C. R., 1165
Drake, D. C., 1214
Dress, K. S., 1843
Drever, H. R., 858
Dubey, H., 1541
Dubrovin, K. P., 289
Dudeck, A. E., 460
Duich, J. M., 460
Du Pont, Agricultural News Letter, 1489, 1662, 1824
Durgeat, L. A., 923, 924
During, C., 1530
Dvorak, J., 1008

Eagles, D., 1175
Ebner, L., 829
Eder, F., 1835
Edgerton, L. J., 1121
Edye, L. A., 213
Eggebrecht, H., 1733
Eglite, A., 116
Ehlers, M., 443
Ekambaram, C., 486
Elder, W. C., 1203
el Hinnawy, E. I., 816
Eliasson, L., 253, 1405, 1779
Eli Lilly & Co., 908, 915, 937, 1001, 1110, 1111, 1145, 1437
Ellenberg, H., 1719
Elliott, F. C., 1533
Elliott, J. G., 384, 408, 932, 1172
Ellis, L. M., 278
Ellison, W., 952
Elmore, C. L., 1589
Elwell, H. M., 152, 429, 750, 1640
Engel, H., 31, 1574
Engel, R. E., 716
Ennis, W. B., 1869
Erickson, L. C., 1786
Esler, A. E., 1077
Essed, E., 1545
Evans, A. C., 1671
Evans, A. W., 1823
Evans, S. A., 315, 333, 608, 633, 1062
Everett, C. F., 646

Faber, H., 450, 1014
Faerber, G. I., 1850
Fahnestock, G. R., 133
Faillet, P., 1601
Falinski, J. B., 242
Fang, S. C., 1401, 1419
Fanning, D. S., 1182
Farm Implement and Machinery Review, 1219
Farmers' Weekly, 940
Farnert, B., 100
Fatus, G. K., 403
Faust, S. D., 589
Feiler, S., 594
Fenaroli, L., 1750
Fenster, C. R., 1485, 1862, 1889
Ferens, P. S., 1477
Ferguson, C. E., 1843
Ferguson, M. H., 1584
Fernandez, O. A., 1457
Fertig, S. N., 267, 345, 351, 352, 423, 518, 529, 553, 637, 686, 767, 781, 785, 897, 1335, 1549
Feucht, W., 666
Feyerabend, G., 1567
Fiddian, W. E. H., 331
Fidler, J. H., 1757
Fife, D. C., 42
Fineran, B. A., 1377
Finfrock, D. C., 1519
Fischer, A., 273, 1112
Fisher, G. G., 1710, 1711
Fizzell, J. A., 1260
Flanagan, T. R., 427, 827
Fleming, B. R., 460
Fletchall, O. H., 520, 521, 522, 650, 679, 1683, 1698
Fletcher, R. A., 1837
Fletcher, W. W., 1142
Foote, L. E., 1573
Forbes, J. O., 1200
Forbes, N., 1363
Forsberg, D. E., 1055, 1056
Forster, R., 1492, 1572
Fosse, R. A., 203, 207
Foy, C. L., 258, 604, 1417, 1535, 1881
France, Institut Technique des Céréales et des Fourrages, 18, 24
Francisco, D. C., 1715
Frank, P. A., 1148
Frans, R. E., 1198
Frazier, W. E., 1298
Frear, D. E. H., 1158, 1900
Fredrick, J. F., 1126
Free, G. R., 897
Freed, V. H., 561, 590, 853, 1407, 1643, 1649, 1876
Freeman, J. F., 367, 642, 645, 1541
French, E. W., 1190
Freshwater, I. T., 1655
Fribourg, H. A., 1217
Friesen, G., 891, 1324
Friesen, H. A., 636, 935, 1027, 1178
Fröschel, P., 1765
Fryer, J. D., 406, 946
Fryer, J. L., 850
Fuller, T. C., 1378
Fults, J. L., 1471
Fundacion Shell, Venezuela, 639, 678, 888, 1192, 1207, 1512
Funderburk, H. H., 186, 1670, 1676, 1793, 1846
Furmidge, C. G. L., 1872
Furrer, A. H., 553
Furrer, J. D., 1485

Gaffron, H., 1791
Gajic, D., 1743
Galan-Fabian, D., 264
Galbraith, J. S., 281
Gallagher, J. E., 85, 461
Galloway, A. L., 605
Galston, A. W., 1386, 1392
Gane, A. J., 656, 904, 1520
Garciduenas, M. R., 819
Gard, L. N., 1843
Gardiner, M. R., 1352
Gardner, B. D., 430
Gardner, W., 354, 388, 700
Garese, P., 1493
Gary, H. L., 1024
Gast, A., 593
Gates, D. M., 1877
Gatherum, G. E., 1632
Gauditz, I., 590
Gaviness, C. E., 1198
Gay, W. B., 1190
Gaylor, J. Y., 173, 1666
Geelhaar, H., 984
Gentner, W. A., 1106, 1458
George, M., 1419
Geortray, G., 165
Gerding, R. K., 1391
Germany, Biol. Bundesanst. f. Land- u. Forstwirtschaft, Braunschweig, 323, 418, 441, 452, 465, 481, 509, 1161
Getzendaner, M. E., 1122
Ghyczy, S., 581
Giberson, B., 282
Giddens, J., 28
Gillespie, B., 1773
Giordano, P. M., 723
Giza, C. A., 1093
Gleason, L. S., 694, 703
Goerlitz, H., 1526
Goix, J., 78
Göksel, N., 1495
Gomez, J. A., 638
Goncharov, B. P., 1356
González-Molina, C. L., 936
Gooden, E. L., 299
Goodliffe, E. R., 1064
Goodrich, T. K., 501
Goodspeed, A. W., 754
Goodway, N. D., 123, 1000
Göpp, K., 1181
Gordon, D. V., 1169
Gordon, P. N., 1821
Gordon, S. A., 1388
Goring, C. A. I., 1146
Gorman, R. C., 1317
Gorz, H. J., 685
Gosnell, J. M., 1624
Goss, R. L., 84, 88, 185
Goutarel, R., 1775
Graham, D. P., 1298
Granhall, I., 1897
Grano, C. X., 155
Granström, B., 951, 1319, 1353
Grant, S. A., 1552
Gray, R. A., 280, 571
Grbic, V., 1267
Great Britain,
  Agricultural Chemicals Approval Organization, 617
  Agric. Res. Counc. Weed Res. Org., 1467
  Pesticides Analytical Committee, 839, 840
  Edinburgh School of Agric., 1340
  Efford Exp. Hort. Sta., 1562
  Forestry Commission, 115
  Grassland Res. Inst., 425, 942
  Jersey States Exp. Sta., 1247
  Luddington Exp. Hort. Sta., 1594
  Min. Agric., Fish. Fd, 62, 191, 929, 1321, 1500, 1569, 1570, 1600, 1848
  Pea Growing Res. Org., 38, 905
  Rosewarne Exp. Hort. Sta., 1576
  Rothamsted Exp. Sta., 618
  Stockbridge House Exp. Hort. Sta., 1561, 1564
Green, D. H., 1506, 1538
Green, H. C., 385
Green, J. O., 939
Green, K. R., 12
Greenham, C. G., 266, 1694
Grim, J. S., 513
Grimm, D. G., 797
Grose, D., 1063

Groskopf, M., 913, 975
Grover, R., 1015, 1016, 1017, 1153, 1413, 1627, 1890, 1891
The Grower, 980, 1448
Grubben, G. J. H., 901
Grümmer, G., 1371
Gruzdev, G. S., 1509
Grzenda, A. R., 1852
Guillemat, J., 556
Gunn, J. S., 866
Gunther, F. A., 1118
Günther, G., 494
Gupta, O. P., 735
Gurinovich, E. S., 1453
Guse, L. R., 1033
Gustafson, N., 671
Gutenmann, W. H., 1442, 1444
Gutsell, R. J., 420
Guyer, H., 1544
Guyot, L., 556

Haas, H. J., 1228
Haas, R. H., 1638, 1702
Haasis, F. A., 83, 1583
Habibrahmanov, H. H., 366
Hadašová, Z., 1730
Hadley, E. B., 215
Hadley, H. H., 40
Häfliger, E., 573, 616
Hafner, K., 343
Hageman, R. H., 1402
Hall, H., 1284
Hall, I. V., 1595
Hall, M., 1179
Halperin, J., 555
Haltvick, E. T., 979
Hamaker, J. W., 1433
Hamblen, M. L., 1593
Hamilton, K. C., 1329, 1759
Hammarlund, A., 365
Hammerton, J. L., 411, 417, 1068
Hammond, H. D., 843
Hamner, C. L., 1098
Hancock, D. H., 655
Hanf, E., 375
Hannah, L. H., 621
Hansen, H., 647
Hansen, H. L., 1653
Hanson, N. S., 1285
Hanuss, K., 1899
Hanway, D. G., 1889
Haragsimova, L., 1139
Haramaki, C., 451
Hardcastle, W. S., 1588, 1213
Hardman, N. F., 5
Hargan, R., 1246, 1459
Hargan, R. P., 704
Harper, J. L., 804, 1369
Harpur, R. L., 332, 334
Harranger, J., 100
Harris, C. I., 1450
Harrod, J. E., 278
Hart, R. H., 1543
Hartley, G. S., 1102, 1832
Harvey, W. A., 752
Hastings, R. E., 368, 644
Hatano, T., 1449
Hauke, R., 1758
Hauser, E. W., 1689, 1748
Haven, D., 1668
Haverland, F., 1755
Havis, J. R., 458, 719
Hawkins, A., 389
Hawkins, J. C., 1174, 1361
Hawksworth, F. G., 240
Hay, J. R., 7, 58, 615
Healy, A. J., 806, 1050
Heath, J. E., 1000
Heath, O. V. S., 832
Heckard, L. R., 237
Heinisch, E., 1851
Helbaek, H., 811
Helson, V. A., 1424
Hemphill, D. D., 987, 1263
Hendershott, C. H., 99
Henne, R. C., 1235, 1324
Henriet, J., 874
Herrett, R. A., 1819
Herron, J. W., 971
Hersh, R. T., 1415
Hertz, L. B., 1221
Hewetson, F. N., 730
Heyn, C. C., 232
Heyndrickx, A., 587
Heywood, B. J., 1817
Hicks, R. D., 520, 521, 522, 1683
Hidiroglu, M., 540
Hierholzer, O., 691
Hilbig, W., 1739
Hilderbrandt, A. C., 1399
Hill, E. R., 1418
Hill, G. D., 1435
Hill, H. J., 149
Hill, K. L., 1414, 1799
Hill, R. F., 862
Hillebrandt, P. M., 1473
Hiltibran, R. C., 1032
Hilton, H. W., 596
Hilton, J. L., 1769
Hoatson, L. M., 1327
Hocombe, S. D., 1157
Hodges, E. M., 1328
Hodgson, G. L., 533, 1708
Hofer, H., 1751
Hoffman, I., 846, 1128, 1129, 1411
Hoffmann, O. L., 1803
Hogan, F. E., 303
Høie, K. L., 742
Holcomb, G. E., 1399
Holevas, C. D., 734
Hollingsworth, M. H., 72
Holloway, R. I. C., 1003
Holly, K., 852, 909, 1818
Holm, L., 913, 975
Holmes, G. D., 1292
Holmes, H. M., 23, 635, 892, 933
Holroyd, J., 328, 330, 626, 632, 1818
Holstun, J. T., 1532, 1534, 1830
Holt, E. C., 1693
Holz, W., 507, 528, 867
Holzer, F. J., 1842, 1845
Homann, P., 1791
Homeyer, B., 1115
Hood, A. E. M., 415
Hooks, J. W., 1540
Hopkins, T. R., 828
Hormay, A. L., 1309
Hornig, G., 378, 379, 382
Horrocks, A. W., 516
Hosegood, P. H., 216, 1760
Hoskins, W. M., 860
Hotjanovič, A. V., 132
Houser, A., 173, 1666
Hovanskaja, I. V., 1776
Hoveland, C. S., 1393
Howden, J. S., 1346
Hubutija, R. A., 1621
Hucknall, J. A., 1613
Hudgins, H. R., 1193
Huffine, W. W., 1589
Hughes, E. C., 1314
Hughes, J. S., 283, 1853, 1854
Hughes, R. G., 898, 907
Hugie, V. K., 688
Huiswoud, R. R., 1333
Hull, H. M., 1769
Hull, R., 917
Hunter, F., 1466
Hunter, R. F., 1552
Hurtig, H., 847
Hyder, D. N., 1554, 1643

Ibrahim, M. A., 649
Il'in, A. M., 131
Ilnicki, R. D., 355, 390, 554, 646, 681, 716, 808, 1812
Indyk, H. W., 370
International,
  Council of Europe, 848
  Food and Agriculture Organization, 361
Ireson, M. J., 863
Isaacs, D. C., 943
Isely, D., 1736
Isenhour, L. L., 36
Isikawa, S., 1013
Isler, D. A., 304
Iurka, H. H., 793
Ivens, G. W., 468, 995, 1065

Jacobs, W. P., 559, 821, 1772
Jacorossi, F., 1658
Jager, K., 122, 125
Jahnel, H., 594
Jaklitsch, L., 684
James, D. B., 1074
James, L., 1718
Jameson, D. A., 1553
Jameson, H. R., 415
Jansen, L. L., 1769
Jeater, R. S. L., 1827
Johannes, H., 872
Johansen, C., 1856
Johansen, R. W., 133
Johansson, I., 1082
John, F., 1282
Johnsen, T. N., 1704, 1747
Johnson, E., 210
Johnson, O., 1813
Johnson, P. R., 1334
Johnson, R. J., 411, 417
Johnson, R. L., 157, 744
Johnson, S. W., 1351
Johnson, W. A., 72, 1529
Johnson, W. H., 1183
Johnston, M. E. H., 1224
Johnstone, D. R., 862
Joice, R., 336, 532, 834
Jonasson, V., 1527
Jones, F. G. W., 1073
Jones, G. E., 32, 37, 39
Jones, J., 409
Jones, J. F., 1713
Jones, L., 424, 939
Jones, P. A., 1290
Jones, W. E., 871
Jordan, L. S., 285, 480, 1143, 1278, 1452, 1610
Journal of the Australian Institute of Agricultural Science, 1159
Jula, F., 1734
Jurkevič, I. V., 1789

Jussiaux, P., 609
Jutras, M. W., 545

Kabailova, I. V., 1453
Kabiersch, W., 914, 1209, 1524, 1528
Kačarava, P. M., 1370
Kadry, A. R., 815, 816
Kaiser, W., 1254
Kalantarov, A. A., 1599
Kalinin, M. K., 1537
Kamal, A. L., 1096
Kampmeier, C., 360
Kanazawa, J., 1840
Karas, J. G., 1098
Karch, K., 3
Karlsson, I., 118
Karnatz, H., 469
Kasahara, Y., 1069
Kasasian, L., 101, 102, 103, 113, 479, 487, 491, 539, 598, 1472, 1654
Kates, A. H., 1603
Kato, T., 1449
Kaul, R., 263
Kays, W. R., 1563
Kees, H., 1323
Keitt, G. W., 1410
Kennedy, K. B., 648
Kennedy, R. F., 1634
Kerr, H. D., 1698
Kersting, F., 1474
Kesler, C. D., 370
Khupse, V. S., 13
Kidder, R. W., 1722
Kief, M., 561
Kilby, R. W., 71
Kilcher, M. R., 807
Kincaid, C., 710
King, J., 1227
King, J. M., 655
King, K., 793
Kinsey, C., 869
Kirch, J. H., 746, 749, 1302
Kirchner, H. A., 1898
Kirkland, J. J., 1124, 1443
Kirkwood, R. C., 531
Kitchin, J. T., 648
Kittock, D. L., 673
Klämbt, H. D., 255
Klein, A. K., 579
Klingman, D. L., 1331, 1698
Klingman, G. C., 89, 1210, 1540, 1590, 1686, 1782, 1864
Ključnikov, L. Ju., 119
Kloke, A., 1866
Klomp, G. J., 1330
Knake, E. L., 1883
Knapp, R., 546
Koch, H. J., 1605
Koch, W., 780
Koenraadt, J., 732, 1291
Kojic, M., 217
Kondratyuk, B. P., 51
Konings, H., 1387
Korak, K. J., 1571
Korven, N. A., 1047, 1054
Kovačevič, J., 1343
Kovalev, V. E., 271
Kozlova, L. M., 124
Kozlowski, T. T., 1018, 1293, 1628
Kramer, D., 1660
Kramer, M., 668, 1311
Kran, A. P., 442
Krantz, R., 1508
Krefting, L. W., 1653
Kretchman, D. W., 97, 98, 1275, 1609, 1611
Krewson, C. F., 1820
Krivolapov, I. E., 653
Krog, N., 1813
Kroller, E., 845
Kropáč, Z., 1176
Kruijne, A. A., 1732
Kuijt, J., 244
Kumar, Vijaya, 34
Kunimi, S., 1013
Künkel, K., 949
Kuntz, J. E., 1018, 1019, 1165, 1293, 1628
Kuraishi, S., 1396, 1425
Kursanov, A. L., 1768
Kurth, H., 1155
Kurtz, A. N., 1819
Kust, C. A., 1762
Küthe, K., 353, 1508

Lachman, W. H., 690, 706, 1418
Lacombe, G., 194
Lagerroth, S., 1322
Lai, J., 1618
Lake States For. Exp. Sta., 141
Lallukka, R., 1072
Lam, S. L., 248
Lamba, P. S., 182, 895
Lamont, D., 277, 605, 1438
Lane, J. R., 1127
Lange, B., 867
Lange, H., 1499
Lange, J., 949
Langille, A. R., 827
Langlois, R. W., 703
Larsen, R. D., 1714
Larsen, R. P., 1271, 1559
Laurin, R. E., 1220
Lavabre, E. M., 111
Lavalleye, M., 433
Laverton, S., 316
Law, A. G., 88
Lawrence, J. M., 1312, 1670, 1676, 1833, 1846
Lawrence, T., 807
Lawson, H. M., 410, 623
Lazenby, A., 192, 193, 1749
Leafe, E. L., 833, 922, 1116
Leaphart, C. D., 1297
Leary, J. B., 1842, 1845
Leasure, J. K., 603
le Baron, H. M., 64, 178, 518, 1236
Ledbetter, G. R., 1858
Lee, O. C., 1483, 1486, 1738
Leefe, J. S., 25, 76
Lees, P. D., 983
le Fevre, C. W., 824, 1426
Leggett, H. W., 1043
Leh, H. O., 1866
Leiderman, L., 668, 1311
Leme, H. de A., 1283
Leonard, O. A., 288, 752, 1303, 1304
Leonard, W. F., 1040
Leoni, A., 1305
Leopold, A. C., 248
Leroy-Deval, J., 137
Lert, P. J., 74
Leuchs, F., 1051
Lewis, A. D., 257
Lewis, J., 412
Lewis, R. H., 850
Lewis, R. P., 1906
Lewis, W. M., 1590
Lhoste, J., 693, 923, 924
Lider, J. V., 95
Liljedahl, J. B., 1511
Limpel, L. E., 277, 605, 722, 1438
Lincoln, W. C., 1418
Lindaberry, H. L., 758
Linden, G., 335, 505, 536, 597
Linder, P. J., 1081
Linscott, D. L., 1697, 1787
Lipsett, J., 21
Lisk, D. J., 837, 1121, 1442, 1444
Listopad, G. E., 311
Little, E. C. S., 1395
Little, R. W., 1637
Livar, M., 577
Locascio, S. J., 1262
Lode, O., 1568
Long, J. A., 1693
Longchamp, R., 613, 1440
E. C. Longmate, Ltd., 610
Lorrant, B., 1134
Lord, P. B., 1309
Lorenzoni, G. G., 260, 1740
Loreti, F., 1598
Lotta Antiparassitaria, 1171
Loustalot, A. J., 1470
Loux, H. M., 278
Low, A. J., 1465
Lowe, A. D., 1163
Lucey, R. F., 648
Luh, B. S., 841
Lush, G. B., 922
Lyndsay, R. V., 1102
Lyon, C. J., 1774
Lyon, J. L., 1394

MacConnell, W. P., 753
Maček, J., 129
Mackenthun, K. M., 1035
MacLeod, D. G., 1761
Madison, R. W., 1649, 1650
Madsen, S. B., 802
Maes, R., 587
Mahadevan, S., 1777
Mahadevan, V., 1726
Mahoney, C. H., 851
Major, A., 584, 1125
Major, J., 1746
Makarova, V. A., 271
Maksymiuk, B., 304
Mani, A. P., 677
Mann, R. A., 748, 1642
Mannering, J. V., 346, 1494
Mareček, F., 708
Marlow, H., 1237, 1567
Martens, M., 918, 921
Martin, A. G., 50, 1536
Martin, E. W., 1015
Martinot-Lagarde, P., 138
Mashtakov, S. M., 1453
Mason, D. T., 1002
Mason, E. B. B., 1892
Mason, G. W., 968
Mastakov, S. M., 830
Masuo, Y., 675
Mathur, P. S., 1612
Mathur, S. N., 1215
Matlock, R. S., 1203
Matthews, D., 1380
Matthews, E. J., 1198
Matthews, L. J., 195, 1025, 1030, 1316, 1700
Matveenko, T. H., 403
Maudoux, E., 153

Maurer, T. C., 1175
Mauritius, Sugar Industry Res. Inst., 1615
Maxie, E. C., 1404
Maxwell, K. E., 90
Maxwell, T. G., 1041
May, L. H., 1771
Mayes, A. J., 922
Mayhew, J. K., 1679
Maynard, D. N., 1418
Meade, J. E., 1692
Meadly, G. R. W., 143, 1339
Meadows, M. W., 702, 704
Meeklah, F. A. H., 894, 1034
Meggitt, W. F., 554, 808
Meleško, I. I., 1537
Mel'nikov, N. N., 569, 1113
Menges, R. M., 1560
Menzies, B. P., 236
Merendi, A., 1310
Mesias, J. R., 1691
Metcalf, R. L., 1154
Mettler, F. A., 1720
Meundt, W. J., 1392
Meyer, L. D., 346
Meyer, R. E., 1705, 1753, 1778, 1780
Mez, E., 1566
Michel, H. G., 459
Mijatovic, K., 1523
Milaire, H., 183
Milborrow, B. V., 245, 1797
Miles, L., 794, 1717
Milford, G. F., 910
Miller, D. E., 1269
Miller, H. A., 1633
Miller, J. H., 1535
Miller, L. A., 1439
Miller, R. B., 953
Miller, S. R., 745
Miller, T. E., 622
Miller, W. F., 755, 1644
Millhollon, R. W., 1287
Milner, M. P., 1842
Minges, P. A., 978
Minshall, W. H., 1422, 1424
Minter, D. J., 925, 926
Misra, D. K., 34, 1058
Mitchell, J. W., 1081
Mitscherlich, G., 148
Miyake, I., 196
Miyamoto, T., 567, 568
Moak, J. E., 1635
Moffitt, R. B., 877
Mohlenbrock, R. H., 809
Molberg, E. S., 1049
Moll, W., 148
Monarca, G., 586
Monreal, K. H., 1499
Montessori, T., 317
Montgomery, M., 561, 853
Moore, D. H., 1251
Moore, E. L., 1875
Morans, C. H., 707
Morehart, A. L., 1834
Moreland, D. E., 1414, 1782, 1799
Morley, H. V., 1411
Morrow, J., 601, 1880
Morrow, T. S., 72
Morton, H. L., 1705, 1780, 1781
Mower, R. G., 714
Muir, R. M., 1396, 1425
Mukherjee, R. N., 265
Mukhopadhyay, S. K., 22
Mukula, J., 771, 1037, 1061, 1072, 1166, 1348
Müller, F., 560
Müller, H. W. K., 169
Müller, J., 120
Muller, R. A., 111
Müllverstedt, R., 879
Mumford, F. E., 1390
Murakami, J., 675
Murphy, H. J., 388, 1484
Murphy, W. J., 679
Murrie, D. G., 250
Murtagh, G. J., 1550
Murthy, K. S., 831, 1431, 1514, 1810
Murtagh, G. J., 1
Muzik, T. J., 55, 1089, 1223
Myhre, A. S., 75
Myska, J., 1811
McAnelly, B., 33
McCaleb, J. E., 1328
McCalla, T. M., 284, 1427
McCarty, C. D., 480, 1276, 1278, 1608
McCarty, M. K., 680, 1485, 1697, 1701, 1787
McCown, J. T., 1609
McCready, C. C., 558, 559, 1772
McCulloch, R. N., 893
McCully, W. G., 206, 1714
McCurdy, E. V., 1053
McDonald, D. J., 902
McGugan, B. M., 557
McGuire, W. S., 1543
McHenry, W. B., 174
McIlvenny, H., 414
McIntyre, G. I., 826
McKee, H. S., 236
McKell, C. M., 1703, 1746
McKeown, N. R., 20, 893
McLeod, J. H., 557
McWhorter, C. G., 1199, 1534, 1796, 1830

Naidu, B. A., 1514, 1810
Narasimha Murty, B. L., 1376
Narasimhaswamy, R. L., 492
Näser, K., 77
Nash, N. L., 1447
Natti, T., 161
Neckelmann, J., 126
Nedeseva, G. N., 222
Nehring, D., 1137
Neild, J. R. A., 911
Nelson, D. C., 961, 962, 963, 972, 973, 976, 1196, 1241
Nelson, R. R., 1763
Nelson, S. H., 1581
Nelson, W. W., 651
Nemec, A. S., 1894
Netherlands,
  Commissie te Bevordering der Suikerbietenteelt in de Noordelijke Provinciën, 1205
  Directie Tuinbouw, Ministerie van Landbouw en Visserij, 1556
  N. V. Landbouwbureau Wiersum, 1822
  Plantenziekenkundige Dienst, 321, 508, 1480
  Proefstation voor de Bloemisterij te Aalsmeer, 1577
  Proefstation voor de Boomkwekerij te Boskoop, 498
  Proefstation voor de Fruitteelt in de Volle Grond, 475, 1261
  Proefstation voor de Groenten- en Fruitteelt onder Glas te Naaldwijk, 446
  Rijkstuinbouwconsulentschap Boskoop, 1579
Neururer, H., 628
Newell, L. C., 680
Newton, M., 1630
Nickell, L. G., 1821
Niering, W. A., 504, 791
Nikolaevskij, V. G., 1403
Nishigami, K., 1398
Nitsch, C., 563
Nitsch, J. P., 563
Njøs, A., 861
Noll, C. J. 381, 640, 697, 701, 705, 1240 1243, 1244, 1245, 1252
Noll, D. C., 512
Nölle, H. H., 335
Norman, D., 1086, 1087
Norman, R. F., 1066
Norris, J., 336, 532, 834
Norstadt, F. A., 1427
North of Scotland Coll. Agric., 324, 619
Northern Ireland, Horticultural Centre, Loughgall, 463
Northern Ireland, Research and Experimental Record of the Ministry of Agriculture, 1507
Noticias Agricolas, 108, 944, 1286
Nyarady, A., 1379, 1734
Nyhlen, Å., 990, 999, 1255
Nylund, R. E., 961, 962, 963, 972, 973, 976, 1196, 1241

Obradovic, M., 1744
O'Brien, T. P., 1060, 1372
Ochs, G., 562
Ogden, E. C., 817
Olaczek, R., 241
Olson, A. R., 715
Olson, H. C., 1214
Omar, A.-A. M., 815
O'Neil, J. M., 787, 1502
Onley, J., 582
Opitz, K. W., 1276
Ordish, G., 1167
Orr, H. P., 1256
Orr, T. J., 1299
Orsenigo, J. R., 16, 702, 958, 1722
Orth, H., 955, 956
Osborne, D. J., 1080, 1382
Ošovskij, A. N., 136
Otten, R. J., 461

Paatela, J., 17
Page, J. B., 622
Palfrey, G. D., 46
Pallas, J. E., 1184
Palm, C. E., 1446
Palmer, R. D., 259, 483, 1792
Panser, G., 1851
Papushev, E., 1885
Papworth, D. S., 1170
Parihar, N. S., 820
Parker, C., 327, 329, 625
Parker, G. L., 606
Parmeter, J. R., 239, 1300
Parsons, W. T., 788, 1315
Parups, E. V., 846, 1411
Passey, H. B., 688
Paterson, J. G., 1197, 1505

Patrick, Z. A., 1731
Patterson, L. A., 310
Patterson, T. M., 966
Pätzold, C., 912
Pawelska, K., 1073
Payfer, R., 580
Pazmany, D., 1379, 1734
Peabody, D. V., 8, 56, 1265, 1510, 1546
Peace, T. R., 1301
Pearce, D. G., 870
Pearce, G. A., 1336, 1337, 1586
Pease, H. L., 274, 583
Pederick, L. A., 200
Peevy, F. A., 154, 1648
Péquignot, R., 609
Pereira, H. C., 216
Pergat, F. F., 1724
Pest Technology, 276
Peters, E. J., 661, 679, 683, 1698
Peters, R. A., 545, 803
Petersen, H. I., 1230
Petrlík, Z., 482
Pettersson, S., 1501
Pfeiffer, R. K., 23, 332, 635, 892, 910, 933
Pfizenmeyer, C. D. C., 229
Phillips, C. E., 225
Phillips, J. D., 332, 635
Phillips, O. M., 1767
Phillips, P. J., 297, 601, 1879
Pieczarka, S. J., 4, 65
Pierce, C., 954
Pierce, M. E., 761, 762
Pierpont, R. L., 502
Plaisted, P. H., 1412
Planters' Bulletin, Rubber Research Institute of Malaya, 1279, 1280, 1625
Playfair, L., 1029
Plhák, F., 1730
Plumb, T. R., 1026
Pokorny, M., 482
Poland, J. L., 1813
Pond, F. W., 145
Poonai, P., 14
Pope, D. T., 1210
Poršneva, N. S., 1607
Porter, L. A., 91, 92, 1004, 1005
Porter, W. K., 257
Porterfield, W. A., 176
Potter, H. S., 1629
Potter, J. A., 1841
Potts, S. F., 1874
Povolockaja, K. L., 1776
Powell, T. R. W., 869, 931
Prashar, P., 1253
Pridham, A. M. S., 455
Pringle, J., 1466
Pringle, W. L., 1229
Privat, G., 234
Proctor, G. C., 1289
Proctor, J. M., 911
Proctor, M. H., 1088
Prodanov, P., 1723
Proebsting, E. L., 1269
Proefsta. voor de Boomkwekerij te Boskoop, 80, 170
Prohorčik, R. A., 830
Pruett, E. W., 1632
Prusakova, L. D., 251
Pushkarnath, 669
Putt, E. D., 672
Pyman, S. D., 1149

Quaglia, A., 445
Quayle, A., 81
Quinlan, J. D., 1104
Quinn, L. R., 1555

Rac, R., 1349
Rademacher, B., 19, 326, 611, 630, 780
Ragsdale, D. W., 298
Rahn, E. M., 392, 566, 1248
Raianu, M., 221
Rake, L., 913, 975
Rakitin, Ju. V., 868, 903, 1776
Raleigh, S. M., 764
Ramakrishnan, P. S., 1742
Ramson, A., 1479
Rao, I. M., 1397
Rawls, C. K., 1855
Raymond, F. H., 146
Raynor, G. S., 817
Razak, K., 302
Rea, H. E., 202, 652, 778, 779, 1682, 1716
Reclamation Era, 1542
Rediske, J. H., 500
Rehbein, C. A., 1688
Rehder, H., 548
Reich, R., 1606
Renfrow, J. F., 1233
Renney, A. J., 1359
Republic of Ireland, Agricultural Institute, 322, 444
Republic of South Africa, Secretary for Agric. and Tech. Serv., 786
Restuccia, G., 2
Revut, I. B., 1356
Rhodes, F. B., 684
Rhodes, P. L., 1517
Rice, E. J., 717
Richardson, W. D., 801
Richter, W., 1222
Riden, J. R., 828
Riepma. P. 114, 181, 295, 739, 740, 1626, 1868
Ries, S. K., 709, 725, 977, 1559
Riggs, R. D., 1593
Righi, R., 1100
Riker, A. J., 1399
Rincon, D., 422
Rincon, D. J., 52
Ritty, P. M., 595
Robb, S. M., 810
Roberts, D. R., 186
Roberts, E. C., 721
Roberts, H. A., 692, 1070, 1071, 1354
Robertson, J. A., 1694
Robinson, B. D., 1060
Robinson, B. J., 1404
Robinson, D. W., 464, 467, 991, 992, 994, 1268
Robinson, E. L., 1188, 1344, 1762, 1764
Robinson, G. S., 1226, 1530
Robinson, R. G., 620, 651
Robison, J. P., 1746
Robocker, W. C., 55, 1223
Robson, J. W., 1289
Roché, B., 1265
Rochecouste, E., 254, 1341
Rodgers, E. G., 291, 1861
Rodriguez, M., 638
Rogers, P. C., 449, 466
Rogers, W. E., 1763
Rogler, G. A., 1228
Röhrig, E., 854

Rollins, H. A., 1603
Rose, G. J., 1156
Ross, M., 823
Ross, M. A., 1338
Roth, H., 844
Roth, R., 1521
Rothamsted Experimental Station, 1358
Roy, J. B., 792
Royce, R. D., 1725
Rozsnyay, Z., 499
Rudakov, O. L., 814
Rudd, R. L., 550
Ruhland, W., 818
Runkel, S. T., 1679
Rusch, R., 341
Russell, R. C., 1143
Russell, T. E., 1022, 1296
Ruth, R. H., 1650
Rutherford, W. M., 448, 1009
Ruuttunen, E., 1318
Ruveda, M. A., 1120
Ryan, G. F., 1275
Ryder, G. J., 27
Ryjoff, S. N., 51
Ryskiewich, D. P., 1412
Ryžaya, M. A., 676

Saad, O., 1283
Sacher, J. A., 1389
Sagar, G. R., 1104
Saidak, W. J., 63, 435, 448, 1009, 1232, 1581
St George Grambauer, T.D., 1349
Saint-Hilaire, P. B., 654
Sajtburhanov, Š. R., 442
Säkö, J. S., 729
Salageanu, N., 264
Salama, S. A., 815, 816
Salisbury, E. J., 218, 219
Salisbury, F. B., 823
Salontai, A., 1503
Šamsiev, G., 1357
Sanchez, C., 638
Sanchez, P. P., 52
Sand, P. F., 1188, 1344, 1701
Sanders, M. B., 107
Sandford, H., 1007, 1320
Sanjeevi, P. S., 486
Sannikov, G. P., 132
Santelmann, P. W., 718, 1203
Sargent, J. A., 1094
Sasser, J. N., 83, 1583
Sastry, M. S., 1726
Sato, H., 675
Satyanarayana, G., 1406
Sawyer, R. L., 391, 393, 447, 1239
Sayre, R. E., 1639
Scaramuzzi, G., 1277
Schaeffer, H. G., 1266
Scharpf, R. F., 239, 1300
Schauvliege, F., 587
Scheibe, K., 1488
Scheuerer, G., 273
Schicke, P., 505, 1454
Schieferstein, R. H., 60
Schilke, J. F., 1429
Schinkel, W., 190
Schipstra, K., 1481, 1907
Schlüter, M., 1137, 1665
Schmidt, H. A., 1898
Schmidt, M., 612, 1138
Schoene, —., 30
Schoenemann, J. A., 1558
Schossig, S., 1604

Schramm, R. J., 1210
Schrank, A. R., 250
Schreiter, S., 555
Schubert, G. H., 1307
Schubert, O. E., 466, 588, 731
Schubert, T. A., 251
Schuder, D. L., 79
Schuldt, P. H., 277, 605, 722, 1438
Schultz, R. D., 1086, 1087
Schulz, G., 1606
Schweizer, E. E., 1532, 1863
Scott, E. M., 882
Scott, M. R., 882
Scott, T. K., 249, 821
Scotter, D. R., 1903
Scottish Hort. Res. Inst., 93, 724
Scroggs, R. E., 1845
Scudder, W. T., 66, 434
Scurfield, G., 231
Seaman, D. E., 176, 1672
Seed Trade Buyers Guide, 763
Seely, R. B., 1248
Selleck, G. W., 621, 1368
Selman, F. L., 1202, 1829, 1858
Semb, G., 541
Semb, L., 959, 1451
Service, 1575, 1652, 1867, 1884, 1901
Seth, S. K., 164
Sexsmith, J. J., 629, 643, 658, 659, 665, 674, 1046, 1177
Seyman, W. S., 69
Shahi, R. D., 485
Sharp, D. G., 1147
Shaw, W. C., 1331, 1344, 1469, 1860
Shea, K. R., 1299
Sheets, T. J., 855, 858, 1831, 1860
Shelby, P., 29
Sheldrick, R. D., 493, 1281
Shell, E. W., 1674
Shenberger, L. C., 1478
Shepherd, D. R., 1344
Shildrick, J. P., 416
Shimabukuro, S., 1441
Shipman, R. D., 160, 747, 1294, 1647
Shull, H., 1902
Shupe, R. H., 1843
Shvetsova-Shilovskaya, K. D., 1113
Siegel, S. M., 1093
Silvy, A., 488
Simes, J. C., 515, 760
Simmons, J. A., 82
Singh, H., 1695
Singh, M., 669
Singletary, C., 1894
Sinha, S. K., 1397
Sipinov, N. A., 1270
Sivaramakrishniah, M., 1376
Skinner, S. O., 1655
Skogley, C. R., 462, 717, 720, 723 1258
Skoglund, N. A., 397, 525, 526, 773, 774, 775, 777, 782, 783, 784
Slavnić, Ž., 1343
Smika, D. E., 1228
Smiley, W. L., 308
Smith, A. W., 985
Smith, D., 1795
Smith, D. H., 1390
Smith, E. M., 1179
Smith, G. E., 171, 1669
Smith, H. L., 1342
Smith, J. L., 134
Smith, L. W., 1060
Smith, N. McD., 1871
Smith, O. E., 1394
Smith, R. F., 516
Smith, R. J., 1194
Sneva, F. A., 1554, 1643
Snow, J. R., 1673
Snyder, W. C., 1731
Soane, C. M., 535
Societa Italo-Americana Prodotti Antiparassitari, 1189
Soekarjo, R., 1083
Sokolowski, A. W., 242
Somasundaram, A., 484
Sommer, E., 666
Soni, B. V., 825
Soper, Q. F., 438, 713
Sós, J., 1849
Soster, P., 1306
Soultanopoulos, C. D., 734
Southern For. Exp. Sta., 150
Southern Rhodesia, Marandellas Grassland Res. Sta., 1187
Spalvinš, Z., 116
Sperry, O. E., 1706
Splittstoesser, W. E., 1828
Sportfischer in Weser-Ems, 1659
Sprague, M. A., 681
Springer, F. B., 357, 370, 371
Spur, H. W., 1399
Squires, V. R., 948
Stackhouse, J. L., 1347
Staebler, G. R., 162, 500
Stahn, B., 453
Staniforth, D. W., 800
Stark, H. M., 1390
Starker, C. H., 309
Starnes, W. J., 40
Starr, J. W., 755, 1644
Stauffer Chemical Co., 570
Steenberg, K., 861
Steenis, J. H., 517, 1667
Steigerwald, E., 1571
Stemmer, K. L., 1132
Stephens, R. J., 667, 698, 859, 996, 997, 1002
Stern, G. M., 1720
Sterrett, J. P., 158, 503, 1639, 1645
Steucke, E. W., 1036
Stickler, P., 1461
Stoddard, E. M., 1727
Stöhr, W., 1487, 1496
Stojanovic, D., 1375
Stoker, J. G., 1893
Stolyarova, A. G., 1724
Stonov, L. D., 1537
Storherr, R. W., 582, 1844
Storkan, R. C., 293
Storrs, E. E., 578
Stott, K. G., 733
Stotts, V. D., 517, 1667
Stovell, F. R., 624
Stowe, B. B., 1429
Straus, J., 1391
Street, H. E., 1085, 1090
Streim, H. G., 280
Strigalev, A. N., 1537
Stroube, E. W., 368, 644, 664, 776
Stryckers, J., 741, 1107, 1557
Stuart, N. W., 1164
Stuckey, I. H., 135
Styles, B. T., 1078
Suchanek, A., 947
Suda, S., 1421
Suggitt, J. W., 1712
Sun-Zun, L., 1685
Suomela, H., 17, 889
Surinam, Dienst Lands Bosbeheer, 139
Šutov, I. V., 121, 127
Svensson, E., 470
Swabey, J., 1565
Swan, D. G., 1225
Sweet, R. D., 436, 575, 695, 1234, 1238
Sweetzer, P. B., 1415
Swingle, H. D., 48
Switzer, C. M., 167, 988, 989, 1457, 1785
Switzerland,
Eidg. Landwirtschaftliche Versuchsanstalt Zürich-Oerlikon, 1482
Eidg. Versuchsanstalt für Obst-, Wein- und Gartenbau Wädenswil, 1482
Stations Fédérales d'Essais Agricoles Lausanne, 1482
Szilvassy, L., 1515, 1516

Tai, E., 1618
Takahashi, C., 1373, 1374
Takahashi, N., 1067
Takematsu, T., 1105
Talbert, R. E., 650
Tasmanian Journal of Agriculture, 187
Taylor, H. F., 857
Taylor, J. L., 1257, 1582
Taylor, R. L., 950
Taylor, T. D., 1274, 1865
Taylorson, R. B., 1728
Technique Droguiste, 269
Terpó, A., 235
Terpstra, W., 1387
Thakur, M. M., 1695
Therrien, H. P., 540
Thiegs, B. J., 286
Thielemann, R., 44
Thimann, K. V., 1770, 1773
Thise, L., 144
Thomas, T. M., 372, 920
Thomaston, W. W., 175
Thompson, A., 967
Thompson, F. B., 179, 884, 930, 941
Thompson, G. D., 1617
Thompson, J. B., 1815
Thompson, J. R., 651
Thompson, J. T., 1213, 1588
Thompson, P. A., 1800
Thompson, R. L., 651
Thurman, D. A., 1085
Thurston, J. M., 220, 805, 1364
Tilemans, E., 314
Timmons, F. L., 757, 1313, 1663
Timofeev, A. F., 168
Tinarelli, A., 899
Tiščenko, D. V., 270, 836
Tisdell, T. F., 390, 554, 808
Tissot, M. C., 472
Tittel, C., 223, 1059, 1733
Tjupko, V. A., 1537
Tocklai Exp. Sta., 1622
Todd, C. W., 1415
Tomaselli, R., 1741
Tompsett, A. A., 94
Töpfer, —., 916
Torell, P. J., 1702
Totten, J. C., 1896
Toussoun, T. A., 1731
Trefná, E., 708

Trevett, M. F., 354, 388, 700, 1484, 1596, 1597
Trinidad, Univ. Coll. West Indies, 737
Triplett, G. B., 1183
Trippi, V. S., 1691
Tronchet, J., 1805, 1806, 1807, 1808
Trop. Pest. Res. Inst., 1619
Troughton, A., 1360
Tucker, R. J., 589
Turner, D. O., 1510
Turner, J. L., 1274
Turquand, E. D., 982
Tyson, D., 1109

Ubels, E., 1518
Uhlig, S. K., 1631
United States,
  Association of Official Agricultural Chemists, 1836
  Dep. Agric., 318
  Nevada Dep. Agric., 10
  President's Science Advisory Committee, 1847
  Red River Valley Agric. Exp. Sta., 11
  Southern Weed Conf., 1895
Uotila, I., 771, 1348
Upchurch, R. P., 1202, 1829, 1858
Uribe, E. G., 1794

Vakulin, A. A., 311
van Andel, O. M., 565
van den Born, W. H., 524, 631, 896, 1048
van der Merwe, J. J., 1504
van der Zweep, W., 585
van Doren, D. M., 27, 1183
Vanga, I. S., 1814
van Geluwe, J. D., 702
van Goor, C. P., 122, 125
van Oorschot, J. L. P., 431
van Overbeek, J., 1384, 1385
van Rijn, P. J., 900, 1661
Varner, R. W., 279, 1435, 1823
Vaughan, R. E., 1341
Veen, H., 1387
Velsicol Chemical Corporation, 1108, 1123, 1133, 1904
Vengris, J., 356, 519, 641, 1752
Venkataramani, K. S., 489
Venkateswarlu, J., 831, 1431
Venturella, L. R. C., 1709
Verlaat, J. G., 437, 439
Verma, R. D., 22, 735
Verma, S. S., 182, 895
Vernell, H. F., 690
Vernetti, J., 853, 1876
Viel, P., 768
Villela, M. G., 1283
Vincent, H. L., 35
Voevodin, A. V., 549
Volkober, Z., 1814
von Keller, T., 287
Vosler, L. C., 184
Vossen, T., 325

Wabersich, R., 1490
Wagener, W. W., 238
Wahl, I., 555
Wain, R. L., 857, 1436, 1816
Waister, P. D., 535
Walker, C. R., 1135, 1136
Walker, H. G., 534
Wallace, K., 189
Wallace, W. H., 401, 402, 770
Wallis, J. A. N., 54, 109, 110, 1011, 1290
Wallis, L. W., 983, 985
Walls, F., 12, 1332
Walls, I. G., 73
Walter, H., 547
Walton, S. V., 301
Waltz, D., 228
Wandås, F., 470
Warboys, I. B., 1218
Warren, G. F., 572, 1409, 1420, 1483, 1798
Warren, L. E., 300
Warren, R., 201
Washburn, B., 305
Watanabe, Y., 675
Waters, W. E., 1578
Watson, G. A., 738
Watts, J. O., 579
Watwood, R. P., 68
Way, J. M., 696
Weatherly, J. H., 151
Webster, A. B., 964, 1144
Webster, D. H., 1784
Wedding, R. T., 1400, 1783
Weed Research, 790
Weidenfeller, T. A., 1435
Weidner, K.-Fr., 47
Weinberger, P., 1729
Weis, G. G., 979
Welbank, P. J., 212
Welch, A. W., 1214
Weldon, L. W., 172, 1672, 1675
Welker, W. V., 1103, 1211
Wellhausen, E. J., 1476
Wendland, E. J., 1323
West, F., 1168
West, J. G., 281
Western Australia, Forest Dep., 147
Western Fruit Grower, 1592
Westhoff, V., 551
White, A. C., 1677
White, D. P., 117, 1629
White, R. G., 96
White, R. W., 82
Whitehead, C. W., 1785
Whiteman, P. C., 1754
Whittier, D. P., 226
Whitworth, J. W., 1089
Wicks, G. A., 1485, 1862
Wiese, A. F., 33, 50, 284, 292, 652, 778, 779, 1536
Wiggans, S. C., 1563
Wilcox, M., 1186, 1782
Wilgus, F., 1759
Wilkerson, J. A., 885
Wilkins, D. A., 1756
Wilkinson, R. E., 1790
Willemot, C. C., 247
Williams, E. J., 211
Williams, G. R., 1603
Williams, J. L., 1483
Williams, M. C., 1718
Williams, O. B., 1687
Williams, R., 1201
Williams, R. A., 1634
Williams, W. T., 1362
Williamson, D. R., 1903
Williamson, R. E., 1869
Wills, G. D., 261
Wills, J. B., 1075
Wilson, B. J., 692
Wilson, F., 1381
Wilson, J. D., 1249
Winans, S. S., 1703
Winston, A. W., 595
Winter, A., 1090
Winter, E. J., 1464
Witherup, S., 1132
Woestemeyer, V. W., 1646
Wood, C. H. P., 1109
Woodbridge, C. G., 1096, 1097
Woodford, E. K., 608
Woods, F. W., 159
Woodstock, L., 1801
Woodstock, L. W., 1423
Woodwell, G. M., 1766
Wooten, O. B., 1532, 1905
World Crops, 1012
Worsham, A. D., 1686
Wort, D. J., 1162
Wrage, L., 401, 402, 770
Wright, N., 1826
Wright, W. L., 4, 65, 438, 713
Wrigley, G., 106
Wyatt, C. C., 1249, 1250

Yamaguchi, S., 262
Yates, R. J., 1157
Yates, W. E., 1870, 1878
Yawney, H. W., 1021
Yazell, D. H., 1651
Yeo, R. R., 1031
Yip, G., 838, 1445
Yocom, H. A., 1295
Yokohama, Y., 1013
Yokum, H. C., 545, 803
Young, H. E., 105, 180
Young, H. Y., 1441
Yuen, Q. H., 596

Zahran, M. K., 649
Zakharova, T. S., 1113
Zalik, S., 1837
Zanardi, D., 727
Zbirovsky, M., 1811
Zemanek, J., 947, 1130, 1811
Zamskaja, V. A., 903
Zhelezova, B., 1723
Ziegenbein, G., 428, 1547, 1548
Zielke, R. C., 664
Zilke, S., 1368
Zimenko, T. G., 1453
Zimmer, W. J., 200
Zimmermann, C. E., 233
Zogg, H., 1544
Zonderwijk, P., 551, 585
Zorzic, M., 1267
Žukova, P. S., 440
Zvara, J., 947
Zweig, G., 1447

SUBJECT INDEX

Acetaldoxime, 3-indole, 1777
Acetamide, chloralchlor-
crops, field (root), 321, 375, 380, 1523, field (other), 399, herbage, 339, horticultural, 432
mixtures,
+TCA, 321, 380, 432
weeds, 321, 375, 380, 399, 1523
Acetamide, *NN*-diallylchloroacetamide (CDAA)
crops, field (cereal), 9, 33, 357, 358, 640, 643, 650, 651, 690, 703, 884, 891, 898, 1046, 1186, 1235, field (root), 45, 46, 389, 664, 882, 885, 1205, field (other), 37, 368, 435, 615, 660, 673, 1198, 1491, fruit, 1273, horticultural, 63, 303, 690, 694, 702, 703, 961, 966, 972, 973, 977, 1236, 1238, 1239, 1241, 1246, 1573
granular, 303, 357, 368, 389, 703, 973, 977, 1241, 1573, 1828
mixtures, +CDEC, 664, 694, 695, 1246, +chlorpropham, 37, 63, 695, 702, 1238, +dinitrophenols, 615, +dinoseb, 37, 435, 660, 1273, +fertilizer, 882, +PCP, 368, +propazine, 651, +trichlorobenzylchloride, 33, 46, 63, 357, 358, 389, 640, 643, 650, 651, 690, 702, 703, 884, 898, 966, 972, 973, 977, 1238, 1241
morphology, 643
soil stabilizing mulch, 1459
rainfall, 1828
temperature, 1828
weeds, 63, 285, 368, 643, 650, 660, 664, 694, 695, 703, 891, 1045, 1046, 1205, 1235, 1246, 1491
Acetamide, *NN*-dimethyldiphenyl (diphenamid)
crops, field (cereal), 37, 438, 937, 1110, field (root), 65, 438, 909, 915, 1210, 1211, 1529, field (other), 50, 65, 438, 650, 661, 963, 1110, 1202, 1203, 1538, fruit, 725, 995, 1001, 1262, 1591, herbage, 438, 683, 915, horticultural, 63, 65, 72, 438, 737, 960, 961, 963, 971, 976, 1110, 1232, 1234, 1236, 1240, 1246, 1248 1252, ornamental, 438, 717, 987, 1273, other, 937, 1540, 1541
granular, 1541
review, 1106, 1110
weeds, 285, 438, 650, 661, 683, 717, 725, 915, 961, 976, 987, 1248, 1262, 1273, 1529, 1541, woody, 1110, susceptibility, 65
Acetamide, *N*-(1′,2′,4′-triazole)-2,4-dichlorophenoxy, 909, 1340
Acetate, abiethylamine, 850
Acetate, 2,4-dinitro-6(2-propyl) phenyl, 46, 63
Acetate, sodium monochloro-, (SMA)
crops, field (cereal), 894, field (other), 191, 396, 884, 966, horticultural, 93, 432, 964, 966, 1562, 1569, 1570, ornamental, 497
defoliant, 454
Acetate (SMA)—*cont.*
desiccant, 903
mixtures, +ammonium sulphate, 903, +chlorpropham, 966, +endothal, 903, +magnesium chloride, 903, +MCPB, 966
weeds, 93, 191, 894, 966
Acetate, *N′*-(4-chlorophenyl)-*NN*-dimethyluronium trichloro-, (monuron-TCA)
crops, forest, 1019, fruit, 98, 1233
uncultivated ground, 1019
weeds, 1031, 1328
Acetate, *NN*-dimethyl-*N′*-phenyluronium trichloro-, (fenuron-TCA)
crops, forest, 1019
uncultivated ground, 1019
weeds, 197, aquatic, 167
Acetic acid, indole (IAA)
analysis, 1837
antagonism, 1092
carbohydrates, 485
conversion of tryptophan to, 250
enzymes, 1389, 1390, 1391, 1392
growth regulation, 251, 253, 1092, 1215
metabolism, 1085
microbiological decomposition, 1088
translocation, 559, 821, 1772, 1773, 1774
Acetic acid, naphthyl (NAA)
activity, 1779
analysis, 1121, 1441
fruit-set prevention, 734
growth regulation, 253, 1513, 1681, 1778
microbiological degradation, 1085
Acetic acid, phenoxy, 4-chloro- (4-CPA)
activity, 1779
crops, herbage, 1051
ornamental, 983
formulation, 532, 533, 1340
growth regulation, 253
microbiological decomposition, 857
mixtures,
+MCPA, 531
side-chain degradation, 857
translocation, 1405
weeds, 523, 531, 532, 533, 1051, 1060, 1340, 1694
Acetic acid, phenoxy-, 4-chloro-2-methyl- (MCPA)
absorption, 1780, 1785
activity, 1779
analysis, 581, 839, 840
compatibility with insecticides, 1163
crops, field (cereal), 3, 17, 18, 25, 31, 46, 191, 322, 325, 331, 332, 333, 334, 335, 337, 338, 339, 340, 342, 636, 647, 780, 882, 889, 894, 1049, 1178, 1358, 1480, 1490, 1491, 1501, 1515, field (root), 46, 339, 1208, 1526, field (other), 3, 7, 339, 365, 366, 398, 401, 402, 657, 658, 675, 676, 737, 906, 1197, 1480, 1481, 1490, fruit, 1272, herbage, 58, 401, 402, 418,
Acetic acid (MCPA), crops—*cont.*
420 527, 882, 885, 947, 1052, 1178, 1480, 1481, 1547, horticultural, 441, 496, ornamental, 87, 103, 453, plantation, 485, 1621, other, 482
economics, 1501
formulation, 463, 773, 782, 1049, 1052, 1340, 1491, 1526
growth regulation, 252, 253, 254, 256, 260, 563, 565
mixtures, +amitrole, 418, 1031, +4-CPA, 531, +2,4-D, 31, 441, 477, 1501, +dalapon, 7, 325, 463, 477, 1272, 1660, +dichlorprop, 1358, +dinoseb, 322, 365, 366, 398, 1501, +DNOC, 366, 675, 1480, +fenac, 339, +fenoprop, 780, +fertilizer, 882, +mecoprop, 322, 782, 1408, +MCPB, 46, 658, 906, 1053, +2 - methoxy - 3,6 - dichlorobenzoic acid, 191, 332, 333, 334, +OMU+BiPC, 342, +2,4,5-T, 7, 103, 169, 342, 418, 1048, 1055, 1057, +2,3,6-TBA, 7, 25, 87, 102, 103, 191, 337, 338, 340, 418, 527, 636, 772, 780, 894, 1025, 1048, 1624, +TCA, 1480
morphology, 342, 696
residues in soil, 1495
solvents, 1833
sward destruction, 1216
toxicology, 1139, 1854
translocation, 1102, 1405
weather, 1526
weeds, 7, 17, 25, 87, 102, 103, 187, 191, 322, 333, 334, 335, 337, 340, 402, 418, 420, 525, 527, 531, 636, 657, 658, 771, 772, 773, 780, 782, 784, 894, 906, 1025, 1031, 1048, 1049, 1052, 1053, 1055, 1060, 1061, 1178, 1187, 1197, 1222, 1340, 1341, 1348, 1526, 1700, aquatic, 169, 170, 175, 325, 517, 1057, 1659, 1660, 1672, susceptibility, 18 1331
Acetic acid, phenoxy, 2,4-dichloro- (2,4-D)
absorption, 1780, 1784
activity, 272, 1779
analysis, 580, 838, 1442, 1447, 1836, 1842
arboricide, 112, 1648
carbohydrates, 1097, 1401, 1787
compatibility with insecticides, 1163
crops, field (cereal), 3, 9, 18, 31, 322, 331, 350, 357, 435, 631, 636, 639, 640, 641, 642, 645, 646, 647, 649, 652, 653, 875, 891, 944, 1177, 1178, 1180, 1186, 1188, 1192, 1225, 1486, 1490, 1491, 1501, 1502, 1503, 1509, 1512, 1515, 1516, 1517, 1619, field (root), 3, 389, 666, 669, 1208, 1235, field (other), 3, 401, 402, 403, 474, 658, 705, 935, 1048, 1202, 1215, 1536, forest, 121, 128, 131, 138, 148, 743, 1015, 1294, 1630, 1632, fruit, 90, 463, 476, 477, 998, 1595, 1596, 1597,

Acetic acid (2,4-D), crops—*cont.*
1618, herbage, 58, 324, 401, 402, 418, 679, 885, 947, 1178, 1480, 1481, 1491, 1547, 1551, horticultural, 63, 441, ornamental, 78, 81, 85, 87, 89, 103, 984, 986, 1486, plantation, 104, 110, 111, 112, 484, 485, 486, 1612, 1617, 1621, other, 482
decomposition in soil, 284, 290, 595, 857
disease, 141, 1098
drift, 1253
enzymes, 1400, 1783
fallow, 284, 1225
formulation, 7, 87, 101, 154, 167, 171, 172, 175, 198, 324, 357, 429, 435, 463, 512, 631, 642, 645, 652, 674, 679, 774, 775, 777, 782, 783, 789, 885, 935, 954, 1031, 1032, 1034, 1055, 1056, 1188, 1222, 1225, 1229, 1303, 1304, 1309, 1330, 1334, 1491, 1502, 1512, 1515, 1516, 1632, 1643, 1664, 1668, 1669, 1670, 1694, 1696, 1701, 1704, 1786, 1814, 1853, 1854, 1855
fruit-set prevention, 734
germination, 1406
granular, 167, 357, 389, 429, 510, 516, 517, 589, 640, 646, 762, 1032, 1035, 1457, 1490, 1667
growth regulation, 252, 253, 272, 823, 1384, 1398, 1399
leaching, 292, 1457
light, 1407
maturation of fruit, 1095
mixtures, +amitrole, 325, 418, 509, 1031, 1225, +amitrole-T, 1696, +arsenicals, 461, +atrazine, 794, +borate, 1057, +borax, 197, +chlorpropham, 101, +dalapon, 325, 350, 477, +dichlobenil, 1670, +dinoseb, 1501, +endothal, 18, +EPTC, 101, +fenac, 1696, +fenoprop, 87, 89, 461, +fertilizer, 882, 1162, 1180, +MCPA, 30, 441, 477, 1222, 1501, +MCPB, 1222, +mecoprop, 322, 875, 986, 1481, +methyl 2,3,5,6-tetrachloroterephthalate, 277, 1186, 1438, +neburon, 89, +PCP, 1617, +simazine, 110, 794, +sodium fluoride, 198, 530, +2,4,5-T, 111, 112, 128, 138, 142, 147, 148, 194, 196, 197, 418, 503, 504, 506, 743, 752, 944, 954, 984, 1026, 1027, 1178, 1208, 1222, 1229, 1304, 1345, 1547, 1630, 1639, 1642, 1649, 1650, 1706, 1713, 1715, +2,3,6-TBA, 102, 103, +TCA, 111, 198, 418, 509, +tricalcium arsenate, 89
morphology, 652, 666, 984, 1096, 1215, 1403
nitrate metabolism, 1402
nitrogen, 1096
non-agricultural use, 103, 142, 201, 539, 794, 796, 797
metabolism, 561, 1786
oxidation, 1400
penetration, 1094
persistence, 1089
pollution of water, 1852

Acetic acid (2,4-D)—*cont.*
polyvinyl alcohol ester, 1814
range improvement, 429
residues in soil, 290, 1495
residues in fruit, 1786
respiration, 1397, 1398
retention, 822, 825
side-chain degradation, 857
soil, 357
soil microflora, 1453
solvents, 1833
sprouting control, 131
sward renovation, 1228
toxicology, 516, 586, 762, 1035, 1136, 1137, 1140, 1449, 1849, 1853, 1854, 1855
translocation, 559, 1405, 1772
uncultivated ground, 1345, 1713, 1715
volatility, 1235, 1457, 1876
weeds, 7, 78, 81, 87, 101, 102, 103, 104, 183, 187, 189, 194, 197, 198, 324, 350, 402, 418, 461, 463, 479, 524, 530, 615, 631, 636, 641, 645, 653, 658, 669, 674, 679, 891, 935, 944, 986, 1031, 1048, 1049, 1054, 1055, 1056, 1057, 1058, 1178, 1186, 1187, 1188, 1208, 1222, 1225, 1329, 1330, 1334, 1336, 1337, 1339, 1341, 1486, 1491, 1502, 1512, 1515, 1551, 1595, 1689, 1690, 1691, 1694, 1695, 1696, 1697, 1698, 1701, 1704, 1706, 1707, 1727, aquatic, 167, 169, 171, 172, 175, 325, 506, 509, 510, 516, 517, 589, 762, 1030, 1031, 1032, 1033, 1034, 1035, 1057, 1137, 1315, 1659, 1662, 1664, 1667, 1668, 1669, 1670, 1672, woody, 101, 103, 128, 138, 142, 147, 148, 154, 196, 503, 504, 737, 750, 752, 954, 1026, 1027, 1229, 1294, 1303, 1304, 1306, 1309, 1345, 1639, 1642, 1643, 1648, 1649, 1650, 1652, 1653, 1654, 1655, susceptibility, 18, 101, 1331, 1486
wetter, 1032, 1706
Acetic acid, phenoxy, 2,5-dichloro-, 1414
Acetic acid, phenoxy, 3,4-dichloro-, 1414
Acetic acid, phenoxy, chloromethyl-, 1436
Acetic acid, phenoxy, 4-fluoro-, 1694
Acetic acid, phenoxy, 2-chloro-4-fluoro-, 750
Acetic acid, phenoxy, 2,4,5-trichloro-, (2,4,5-T)
absorption, 1780, 1785, 1788
activity, 1779
analysis, 580, 851, 1836, 1842
arboricide, 112, 162
crops, field (cereal), 342, 636, 875, field (root), 1208, field (other), 1536, forest, 115, 121, 128, 131, 138, 148, 151, 152, 156, 499, 743, 1020, 1294, 1630, fruit, 463, 731, 737, 1596, 1597, herbage, 418, 885, 1547, 1548, ornamental, 85, 87, 103, 983, 984, plantation, 111, 485, 486, 1614
drift damage, 1874, 1879
formulation, 101, 102, 152, 154, 156, 497, 501, 506, 731, 750, 789,

Acetic acid (2,4,5-T) formulation—*cont.*
954, 1021, 1027, 1229, 1294, 1303, 1330, 1630, 1638, 1640, 1641, 1654, 1702, 1706
germination, 1406
granular, 1294
growth regulation, 253
leaching, 292
mixtures, +atrazine, 794, +2,4-D, 111, 112, 128, 138, 142, 147, 148, 194, 196, 418, 503, 504, 506, 636, 944, 954, 984, 1026, 1027, 1178, 1229, 1304, 1311, 1345, 1547, 1630, 1639, 1642, 1649, 1650, 1706, 1713, 1715, +dalapon, 499, +diquat, 147, +fertilizer, 1789, +MCPA, 7, 103, 169, 342, 418, 1048, 1055, 1057, +mecoprop, 875, +simazine, 794, +TCA, 111
morphology, 342, 1404, 1789
non-agricultural, 102, 142, 205, 539, 794
photosynthesis, 1414
rangelands, 1229
residues in soil, 1495
solvents, 1833
sprouting control, 131
temperature, 1705
toxicology, 283, 1137, 1853, 1854
translocation, 1404, 1405, 1407, 1788
uncultivated ground, 1345, 1713, 1715
weeds, 87, 102, 103, 183, 194, 418, 479, 499, 636, 789, 944, 1048, 1051, 1055, 1060, 1222, 1330, 1333, 1344, 1577, 1614, 1695, 1702, 1705, 1706, 1709, 1727, aquatic, 169, 175, 506, 1032, 1057, 1137, 1659, 1662, susceptibility, 1331, woody, 101, 103, 115, 128, 138, 142, 143, 147, 148, 151, 152, 153, 154, 156, 158, 162, 196, 324, 479, 497, 501, 503, 504, 737, 750, 752, 753, 755, 954, 1020, 1021, 1025, 1026, 1027, 1028, 1178, 1229, 1294, 1296, 1303, 1304, 1311, 1345, 1638, 1639, 1640, 1641, 1642, 1644, 1645, 1648, 1649, 1650, 1651, 1653 1654
wetter, 1705, 1706
Acetic acids, phenoxy-,
activity, 1781
carcinostatic effects, 1086
metabolism, 1782
partition co-efficients and activity, 1396
soil micro-organisms, 1142
woody weeds, 163
Acetic acid, phenyl-, 1099, 1769
Acetic acid, phenyl, 2-methoxy-3,6-dichloro-, 1108
Acetic acid, phenyl methyl esters, 578
Acetic acid, phenyl, 2,3,6-trichloro-, (fenac)
crops, field (cereal), 32, 339, 348, 352, 641, 642, 690, 1186, 1188, 1506, field (root), 103, 339, 387, field (other), 339, 705, 1536, fruit, 98, 101, 103, 477, 737,

Acetic acid (fenac), crops—*cont.*
herbage, 55, 339, horticultural, 964, ornamental, 103, plantation, 103, 109, 110, 113, 1011, 1287, 1615, other, 938
formulation, 642, 778, 1287
granular, 174
leaching studies, 292
mixtures, +amitrole, 203, +amitrole-T, 1696, +atrazine, 352, +borates, 778, 1057, +2,4-D, 1696, +MCPA, 339, +MCPB, 339, +paraquat, 737, +triazines, 203, +ureas, 203
polluting water, 1852
rainfall, 203
range improvement, 429
uncultivated ground, 201, 539
weeds, 55, 101, 103, 110, 197, 203, 348, 387, 518, 519, 641, 765, 770, 778, 964, 1057, 1188, 1344, 1506, 1696, aquatic, 174, 517, 1030, 1667, 1670, woody, 1028
Acetic acid, polyvinyl alcohol ester, 1814
Acetic acid, trichloro-, (TCA)
analysis, 843
bulb destruction, 983
crops, field (cereal), 339, 348, 882, 934, 1480, field (root), 43, 45, 103, 321, 325, 339, 375, 381, 387, 523, 664, 882, 885, 911, 1208, 1235, 1340, 1523, field (other), 38, 323, 339, 364, 403, 882, 934, 1520, 1682, forest, 495, 499, 737, fruit, 103, 473, 477, 487, 990, 997, 1275, 1598, 1606, 1618, herbage, 179, 339, horticultural, 63, 432, 882, 1232, 1248, ornamental, 103, 983, 984, plantation, 101, 103, 104, 111, 113, 491, 1284, 1285
formulation, 523, 1275
growth responses, 254
mixtures, +amitrole, 364, 418, 509, 1659, +atrazine, 794, +chloralchloracetamide, 321, 325, 339, 375, 432, 1523, +chloramben, 45, +chlorpropham, 45, +2,4-D, 111, 198, 403, 418, 509, 1659, +dalapon, 499, +dinoseb, 45, 911, 997, 1340, +endothal, 381, 664, +EPTC, 45, +fenuron, 1275, +fertiliser, 882, +MCPA, 1480, +paraquat, 737, +PCP, 1284, +potassium cyanate, 63, 1248, +propham, 882, +simazine, 487, 737, 794, +sodium fluoride, 198, +2,4,5-T, 111, 499, +triazines, 538, +2,3,6 - trichlorobenzyloxypropanol, 1275, +ureas, 538
photosynthesis, 111
residues in soil, 592
soil, 491
toxicology, 850, 1137, 1850
uncultivated ground, 103, 206, 538, 539, 794, 1714
weeds, 43, 104, 179, 198, 206, 321, 325, 348, 364, 387, 418, 479, 499, 523, 538, 664, 766, 882, 911, 934, 1232, 1248, 1318, 1319, 1327, 1520, 1615, 1682, 1686, 1714, aquatic, 509, 1137, 1659, 1665
wetter, 1682
Acetic acid, tetra-, copper ethylene diamine, 1136
Acetic acid, yl, 4-chloro-2-oxobenzothiazolin-3-, 1116
Acetic acid, yl, 2-oxobenzothiazolin-, 1116
Acetic acids, ureido, 1113
Acetone, hexachloro-, 197, 1682
Acetonitrile, see Nitrile, aceto-
Acrolein, see Aldehyde, acryl
Acrylaldehyde, see Aldehyde, acryl
Acryl anilides, see Anilides, acryl
Acrylic acid, *cis*-3-chloro-, 1819
Acyl anilides, see Anilides acyl
Additives, see Herbicides, additives
Adsorption herbicides, see herbicides, adsorption
Aerial application, see Application, aerial
Agitator, see Application, agitator
Aircraft, see Application, aerial
Alcohol, allyl
crops, forest, 497, 741, 1629, horticultural, 959, 961, 1249, 1564, ornamental, 1255
mixtures, +ethylene dibromide, 1629
Alcohol, isopropyl, 850
Aldehyde, acryl, (acrolein)
review, 1439
toxicology, 167, 850
weeds, aquatic, 167, 172, 510, 1314, 1678
Aliphatic acids, chlorine-substituted, 1769
Allyl alcohol, see Alcohol, allyl
Ametryne, see Triazine, 4-ethylamino - 6 - isopropylamino - 2-methylthio-1,3,5-
Amide, *N*-(3,4-dichlorophenyl)methacryl-, (dicryl)
crops, field (cereal), 32, 330, 339, 340, (root), 103, 339, (other), 11, 50, 339, 1213, horticultural, 101, 102, 435, 697, 699, 700, 964, 965, 967, 969, 970, 975, 1235, ornamental, 76, 88, 1578, 1588
granular, 435, 975
mixtures, +chlorpropham, 699, +disodium methyl arsonate, 1213, 1588
weeds, 88, 340, 435, 699, 969, 970, 1213
wetter, 330, 1213
Amides, *N*-(3,4-dichlorophenyl)-alkyl-, 1799
Aminotriazole, see Triazole, amino-
Amitrole, see Triazole, 3-amino-1,2,4-
Amitrole-T, see Triazole, 3-amino-1,2,4-+NH_4SCN,
Ammonium sulphamate, see Sulphamate, ammonium
Ammonium sulphate, see Sulphate, ammonium
Ammonium thiocyanate, see Cyanate, ammonium thio-
AMS, see Sulphamate, ammonium
Anilides, acryl, 1384
Anilides, acyl, 1769
Aniline, *N,N*-di(*n*-propyl)-2,6-dinitro, 713, 717
Aniline, 2,6-dinitro-*NN*-dipropyl-4-methyl-, (dipropalin)
Aniline (dipropalin)—*cont.*
crops, horticultural, 1246, ornamental, 87, 89, 987, 988, 1582
review, 1106
weeds, 87, 89
Aniline, 2,6-dinitro-*N,N*-dipropyl-4-trifluoromethyl, (trifluralin)
analysis, 1845
crops, field (root), 1210, field (other), 737, 908, 1202, 1437, fruit, 1262, horticultural, 737, 960, 1111, 1234, 1236, ornamental, 87, 89, 987, 988, 1257, 1590, other, 1540
granular, 89
mixtures, +2,4-D, 1590, +disodium methylarsonate, 1590
review, 1106, 1111
weeds, 89, 908, 987, 988, 1111, 1344
Application
aerial, 205, 297, 298, 301, 302, 303, 304, 306, 312, 600, 606, 862, 863, 1881, 1882
agitator, 602
drift, 304, 598, 601, 1873, 1874, 1878, 1879, 1880
droplet studies, 296, 864, 1868, 1869, 1870, 1871, 1872
dusts, 1872
granular *v.* liquid, 1883
granules, 309, 602, 862, 863, 1890
gravity flow methods, 175
ground, 305, 306
incorporation, 285, 294, 1204, 1460
injector, 1148
large droplet, 676
mist blower, 307, 308, 1651
nozzles, 297, 303, 304, 676, 1456
sprayers and spraying
air cylinders, 1575
bifluid system, 601, 1880
calculation of rates, orchards, 1600
calibration tables, 300, 1886, 1887, 1888
experimental, 1153, 1810, 1893
logarithmic, 1152
nozzles, 1885
pot, 1892
review, 599, 1455
tractor-mounted, hinged boom, 310, 1147
training operators, 870, 1475
tri-band, 1532
safety measures, 1867, 1873
sub-surface, 1889
volume rate, 295, 1868
Aquatic weeds, see Weeds, aquatic
Arboricides, 112, 1021, 1648
Arid-zone farming, see Control, cultural, arid-zone farming
Argentina
Diplotaxis tenuifolia declared noxious weed, 1707
Arsenicals
weeds, aquatic, 1030
amine methylarsonate, 1693
ammonium methyl arsonate, 462, 719
arsenic, 87, 988, 1655, 1838
arsenic trioxide, 1225
arsenious oxide, 714, 715, 850, 1589
cacodylic acid, 681

Arsenicals—*cont.*
calcium arsenate, 460, 461, 714, 715, 716, 717, 718, 987, 1225
calcium propyl arsonate, 987, 988
disodium methyl arsonate
crops, field (other), 1213, ornamental (turf), 719, 1583, 1590, 1693
mixtures, +2,4-D, 1590, +dicryl, 1213, 1588, 1591, +trifluralin, 1590
weeds, 1693, aquatic, 1670
sodium arsenite,
arboricide, 98, 112, 153, 161
crops, ornamental, 983
desiccation, 393, 394
uncultivated ground, 794
weeds, 1727, aquatic, 1314
lead arsenate, 714, 715, 718, 1225, 1589
sodium methyl arsonate, 1259
tricalcium arsenate, 87, 89, 988, 989
Atraton, see Triazine, 4-ethylamino-6 - isopropylamino - 2 - methoxy-1,3,5-
Atrazine, see Triazine, 2-chloro-4-ethylamino - 6 - isopropylamino-1,3,5-
Australia, weeds of turf, 1585
Auxins, 1084, 1090, 1382, 1405, 1410, 1429, 1802
Axe for frilling, 607
Azoniaphenanthrene-2A, 9,10-dihydro-8a,10a-di-, (diquat)
arboricide, 1281
bioassay, 1846
chemical and physical properties, 275, 1677
crops, field (cereal), 7, 14, 25, field (root), 46, 321, 322, 325, 383, 921, 929, field (other), 14, 1197, forest, 498, 741, fruit, 96, 103, 463, 464, 991, 1274, 1565, 1600, herbage, 948, 1040, horticultural, 321, 432, 691, 956, 964, 972, 1247, 1481, 1570, ornamental, 76, 80, 497, 498, 981, 983, 986, 1576, ornamental (turf), 986, plantation, 103, 1614, 1616, 1617, other, 404
defoliant, 454
de-suckering raspberries, 93
desiccant, 101, 395, 428, 1209, 1548, 1616
formulation, 1672
germination, 428
mixtures, +atrazine, 737, +chlorpropham, 80, 741, +dalapon, 46, +fenac, 737, +paraquat, 507, 1274, +simazine, 80, 1274, +2,4,5-T, 147, +TCA, 737, +triazines, 103
pH, 1829
photosynthesis, 691, 1384
review, 275
seedbeds, 321, 929, 1565
soil adsorption, 1450
soil residues, 1865
sward destruction, 574, 1530
toxicology, 275, 850, 1675
water quality, 1676
weeds, 7, 14, 25, 96, 463, 615, 948, 972, 981, 991, 1040, 1197, 1274, 1332, 1614, 1619, aquatic, 172,

Azoniaphenanthrene-2A (diquat), weeds—*cont.*
507, 1030, 1032, 1033, 1332, 1664, 1667, 1672, 1677, woody, 147
wetter, 96, 1672

Barban, see Carbamate, 4-chlorobut-2-ynyl *N*-(3-chlorophenyl)-
Bed cultivation, see control, management
Belgium
Benzamide, 2,6-dichloro-, 1812
Benzenes, analysis, 577
Benzene hexachloride, see Chloride, benzene hexa-
Benzene, nitro, 1,2,4,5-tetrachloro-3-, 454
Benzene, trichloro-, 850
Benzoate, 2,4-dichlorophenoxyethyl, 81, 90
Benzoic acid, polychloro-, 134, 284, 292, 1536
Benzoic acid, 2,3,5,6-tetrachloro-, 429
Benzoic acid, 2-amino-3,5,6-trichloro-
analysis, 1123
crops, field (cereal), 7, 191, 330, 441, 631, 636, 644, 1186, 1619, field (other), 674, horticultural, 441, 1235, 1246, ornamental, 87, plantation, 740
mixtures, +MCPA, 191
toxicity, 1132
weeds, 7, 87, 191, 330, 631, 636, 644, 674, 740, 775, 782, 1053
Benzoic acid, 3-amino-2,5-dichloro-, (chloramben)
crops, field (cereal), 327, 328, 329, 339, 650, 685, 1506, 1619, field (root), 45, 46, 48, 102, 103, 339, 383, 390, 391, 884, 913, 1211, 1235, 1340, 1529, field (other), 38, 39, 339, 367, 368, 369, 401, 655, 660, 661, 673, 705, 737, 905, 963, 1197, 1200, 1203, forest, 457, 458, 497, 498, 709, fruit, 103, 474, 995, 1233, herbage, 339, 401, 685, 950, horticultural, 63, 321, 432, 433, 435, 436, 437, 447, 448, 449, 615, 690, 692, 698, 699, 700, 707, 724, 737, 956, 960, 961, 963, 964, 965, 971, 975, 977, 1233, 1239, 1243, 1246, 1248, 1480, ornamental, 76, 80, 103, 457, 458, 497, 709, 711, 1577, 1582, plantation, 109, other, 938, 1540
granular, 48, 327, 368, 390, 391, 435, 436, 447, 457, 458, 615, 692, 938, 960, 975, 977, 995, 1340
leaching, 327
mixtures, +chlorpropham, 368, +di-allate, 327, 328, 905, +dinoseb, 38, +EPTC, 449, +methyl 2,3,5,6-tetrachloroterephthalate, 1246, +propazine, 884, +solan, 699, +TCA, 45, +trietazine, 884
mode of action, 561
photodecomposition, 1831
row spacing, 369

Benzoic acid (chloramben)—*cont.*
translocation, 260
weeds, 39, 46, 63, 285, 327, 328, 329, 367, 368, 369, 401, 437, 458, 474, 615, 650, 655, 660, 661, 685, 692, 699, 770, 1200, 1233, 1248, 1506
Benzoic acid, halogenated, 256
Benzoic acid, 2-methoxy-3,6-dichloro-
abstracts, 1904
analysis, 1123
crops, field (cereal), 7, 191, 329, 330, 332, 333, 334, 335, 631, 636, 641, 645, 1186, 1188, 1619, field (root), 1213, field (other), 202, 1048, herbage, 740, horticultural, 1235, ornamental, 87, plantation, 740
formulation, 641
mixtures, +arsenicals, 1670, +2,4-D, 1696, +MCPA, 191, 332, 333, 334, 335
residues in plants, 1134
toxicology, 1132, 1133, 1134
uncultivated ground, 1716
weeds, 7, 87, 197, 202, 329, 330, 333, 334, 524, 526, 533, 615, 631, 636, 641, 645, 674, 680, 740, 770, 774, 775, 777, 782, 1025, 1048, 1053, 1055, 1056, 1057, 1188, 1239, 1696, 1716, aquatic, 202, 1057, 1670, woody, 1025
Benzoic acid, methyldichloro-, 644, 776
Benzoic acid, 3-nitro-2,5-dichloro-
crops, field (other), 38, 655, fruit, 96, 466, 1263, horticultural, 447, 692
granular, 447, 692, 1263
Benzoic acid, polychloro-, 770, 1229, 1442, 1727
Benzoic acid, 2,3,5,6-tetrachloro-, 429
Benzoic acid, trichloro-, 1334, 1405, 1646, 1706, 1715
Benzoic acid, 2,3,6-trichloro-, (2,3,6-TBA)
contaminating straw, 980, 1448
crops, field (cereal), 25, 191, 323, 330, 331, 337, 338, 340, 636, 640, 644, 780, 894, 1049, field (other), 1536, herbage, 55, 418, 527, ornamental, 87, plantation, 101, 102, 109, 1624
formulation, 1031, 1057, 1304
leaching, 292
mixtures, +amitrole, 503, +AMS, 197, +borate, 1049, 1053, 1054, 1057, 1229, 1346, +2,4-D, 102, 103, +dalapon, 1624, +MCPA, 7, 25, 87, 102, 103, 191, 337, 338, 340, 418, 527, 636, 772, 780, 894, 1025, 1048, 1624
range improvement, 429, 1229
residues in soil, 1144, 1862
translocation, 1028, 1102, 1410
uncultivated ground, 102, 201, 1346
volatility, 1862
weeds, 25, 55, 102, 103, 191, 197, 337, 340, 418, 527, 636, 644, 770, 772, 778, 780, 785, 894, 1025, 1031, 1048, 1049, 1057, 1698, 1704, aquatic, 1034, woody, 503, 750, 1025, 1028, 1304, 1311, 1346

Benzoic acid, 3,4,5-trichloro-, 1414
Benzoic acid, tri-iodo-, 206, 1092, 1774
Benzoic acids, 255, 256, 1769
Benzoic acids, methyl esters, 578
Benzonitrile, see Nitrile, benzo-
Benzylammonium chloride, see Chloride, benzylammonium
Bioassay, 832, 1130, 1430, 1846
Biological control, see Control, biological
Biology
  garden weeds, 218, 219
  interaction, native and introduced plant species, New Zealand, 806
  oxygen requirements, plant roots, 1361, 1362
BiPC, see Carbamate, butinol *N*-(3-chlorophenyl)-
Bipyridylium-2A, 1,1′-dimethyl-4,4′-, (paraquat)
  arboricide, 1281
  bioassay, 1846
  crops, field (cereal), 14, 25, 930, field (root), 911, 921, 929, field (other), 417, 737, 930, forest, 491, fruit, 96, 101, 103, 463, 464, 487, 491, 737, 991, 1274, 1565, 1600, 1827, herbage, 59, 179, 411, 414, 415, 424, 425, 941, 948, 1040, horticultural, 964, 1247, 1481, 1570, ornamental, 981, 1576, plantation, 101, 103, 114, 276, 491, 1011, 1617, 1619, 1626
  desiccant, 276, 428, 1826
  germination, 428
  mixtures, +amitrole-T, 930, +atrazine, 96, +diquat, 507, 1274, +diuron, 96, 425, 1011, +fenac, 103, +simazine, 96, 101, 487, 737, 911, 1274, +triazines, 103, +trietazine, 911
  pH, 1829
  photosynthesis, 1384
  residues in soil, 1865
  review, 276, 1289, 1677, 1826, 1827
  seedbeds, 929, 1565, 1827
  spreader-sticker, 96
  sward destruction, 4, 414, 415, 417, 425, 574, 881, 930, 939, 1216, 1827
  synergy, 1420
  toxicology, 507
  uncultivated ground, 103, 539, 1619, 1827
  water quality, 1676
  weeds, 14, 25, 96, 101, 179, 276, 424, 425, 463, 479, 487, 881, 948, 964, 981, 991, 1040, 1216, 1274, 1626, aquatic, 167, 1030, 1316, 1664, 1677, 1826, woody, 1826
  wetters, 114, 487, 491, 911
Bitumen mulch, see Mulch
Biuret, 1195
Borates
  crops, fruit, 98
  mixtures, +chlorates, see borate-chlorate mixtures, +2,4-D, 1057, +fenac, 1057, +monuron, 98, 1038, 1057, +2,3,6-TBA, 1049, 1053, 1057, 1229, 1346
  rangelands, 1229
  review, 1117
  uncultivated ground, 1346
Borates—*cont.*
  disodium tetraborate decahydrate, 1646
  disodium tetraborate pentahydrate, 1646
  sodium borate, 538, 778
  sodium calcium borate, 133
  sodium tetraborate, 1057
Borate-chlorate mixtures
  crops, fruit, 98
  mixtures, +diuron, 98, +monuron, 1682, 1715
  uncultivated ground, 206, 1715
  weeds, 1038, 1057, 1682
Borax, 1727, 1927
Boric acid, phenyl, 562
British Weed Control Conference (1962), 1907
Bromacil, see Uracil, 5-bromo-3-*s*-butyl-6-methyl-
Bromide, ethylene di-, 779, 1629
Bromide, methyl
  crops, fruit, 90, 1004, 1275, 1593, 1611, ornamental, 83, 85, 1583
  disease control, 1165
  economics, 83
  mixtures, +chloropicrin, 90, 185, 293, 1583, 1593, +propargyl bromide, 185, 1583, 1593
  soil nitrogen, 1358
  weeds, 185, 1275, 1344
Bromide, propargyl, 185, 1583, 1593
  bulbs, destruction of ground keepers, 983
Burning, see Control, fire
Butyrate, sodium dichloro-
  analysis, 844
  crops, field 323, fruit, 477, herbage, 418, horticultural, 432, 523, other, 481, 497
  weeds, 323, 364, 418, 497, 523, 941, 1040, aquatic, 509, 1659
Butyrate, sodium α,β-dichloroiso-, 40
Butyric acid, 3-indole-, 1393
Butyric acid, 4-(4-chloro-2-methylphenoxy)-, (MCPB)
  absorption, 1785
  crops, field (cereal), 18, 322, 339, 340, 649, 1480, 1491, field (root), 46, 339, field (other), 7, 38, 322, 339, 365, 366, 658, 906, 966, 1521, 1538, fruit, 94, 463, herbage, 56, 58, 339, 340, 427, 947, 1052, 1178, 1480, horticultural, 63, 1237, ornamental, 78
  formulation, 322, 463, 658, 1056
  mixtures, +dalapon, 427, +dinoseb, 366, 966, +DNOC, 366, +fenac, 339, +MCPA, 46, 658, 906, 1053, +SMA, 966
  weeds, 7, 46, 78, 94, 103, 197, 322, 340, 426, 524, 658, 782, 947, 966, 1052, 1053, 1056, 1222, 1237, 1521, 1700, susceptibility, 18
  absorption, 1780, 1785
  aerial *v.* ground application, 60
  analysis, 1442
  crops, field (cereal), 322, 330, 333, 894, 1491, field (other), 365, 657, 674, 737, 1048, 1201, fruit, 463, 1004, herbage, 56, 58, 60, 423, 427, 679, 683, 885, 943, 947, 1052, 1178, 1549, horticultural, 964, ornamental, 85
Butyric acid (MCPB)—*cont.*
  formulation, 60, 322, 463, 500, 524, 674, 679, 773, 774, 777
  metabolism, 500, 561
  microbiological decomposition, 857
  mixtures, +dalapon, 427, 683
  side-chain degradation, 857
  toxicology, 1407
  uncultivated ground, 102
  weeds, 58, 60, 102, 103, 197, 322, 330, 423, 524, 657, 674, 679, 773, 774, 777, 799, 894, 947, 964, 1048, 1049, 1052, 1053, 1055, 1201, aquatic, 517, susceptibility, 1331
Butyric acid, 4-(2,4,5-trichlorophenoxy), (2,4,5-TB), 500, 1630
Butyric acids, phenoxy
  activity, 1781
  metabolism, 1782,

Calcium arsenate, see Arsenicals
Calcium carbonate, see Carbonate, calcium
Calcium chlorate, see Chlorate, calcium
Calcium cyanamide, see Cyanamide, calcium
Canada,
  recommendations, Eastern, 1160
  review 615
Carbamate, butinol *N*-(3-chlorophenyl), (BiPC)
  crops, field (cereal), 323, 340, 342, 1498, field (root), 43, 102, 103, 321, 322, 323, 373, 374, 375, 376, 377, 383, 909, 920, 921, 1480, 1523, field (other), 38, 655, 693, 737, forest, 497, 498, 741, horticultural, 432, 441, 444, 693, 698, 724, 737, ornamental, 80, 452, plantation, 109, 110, 740, other, 938
  granular, 110, 323, 938
  mixtures, +MCPA, 342, +OMU, 38, 80, 102, 103, 109, 110, 321, 322, 323, 342, 373, 374, 375, 376, 377, 383, 432, 441, 444, 452, 497, 498, 655, 693, 698, 724, 737, 740, 741, 1106, 1323, 1480, 1523, +PCA, 921, +2,4,5-T, 342
  morphology, 342
  residues in soil, 592
  review, 1106
  weeds, 323, 376, 377, 432, 444, 698, 740, 1323, 1498, 1523, susceptibility, 374
Carbamate, *t*-butyl-di-*N*-propylthiol-, 971, 1582
Carbamate, α-carbo-(2,4-dichlorophenoxyethoxy)ethyl - *N*-phenyl-, 1044
Carbamate, 4-chlorobut-2-ynyl *N*-(3-chlorophenyl)-, (barban)
  antagonism, 1803
  carbohydrates, 885
  3-chloroaniline-containing substances
  crops, field (cereal), 23, 24, 331, 338, 339, 340, 627, 629, 631, 632, 633, 634, 635, 891, 892, 1044, 1046, 1321, 1499, 1505, 1520, field (root), 321, 325, 339, 375, 885, 1046, field (other), 38, 339,

Carbamate (barban) crops—*cont.*
397, 402, 656, 659, 660, 891, 892, 905, 935, 1044, 1046, 1197, herbage, 402, ornamental, 710
decomposition in soil, 289
formulation, 1044
mixtures, +MCPA, 1044
pests, 1546
residues in plants, 1046
review, 892
weeds, 23, 24, 101, 321, 325, 340, 397, 402, 419, 525, 619, 627, 629, 631, 633, 634, 635, 656, 659, 660, 892, 905, 1044, 1046, 1055, 1197, 1220, 1321, 1499, 1505, 1520
Carbamate, 2-chloroallyl-*NN*-diethyldithio-, (CDEC)
crops, field (cereal), 891, field (root), 45, 48, 389, 664, 882, 884, field (other), 615, 657, 694, 1197, 1491, forest, 456, 457, 458, 694, 1015, fruit, 998, 1233, 1563, horticultural, 63, 64, 67, 71, 72, 435, 448, 690, 694, 695, 964, 975, 1232, 1239, 1246, 1560, 1562, 1563, ornamental, 74, 76, 457, 458, 694, 1563, plantation, 1621
decomposition in soil, 575
granular, 48, 64, 67, 71, 389, 457, 458, 575, 975, 1562
mixtures, +CDAA, 664, 694, 695, 1246, +chlorpropham, 695, + 2,4 - dichlorophenyl - 4 - nitrophenyl ether, 1562, +dinitrophenols, 615, +fertilizer, 882, +solan, 695,
soil stabilising mulch, 1459, 1563
volatility, 575
weeds, 67, 285, 389, 448, 458, 657, 664, 695, 891, 1233, 1246, 1491, susceptibility, 374
Carbamate, di-isopropylthiol, *S*-2,3-dichloroallyl *NN*-, (di-allate)
compatibility-, 327
crops, field (cereal), 24, 327, 339, 340, 619, 621, 625, 629, 633, 886, 887, 935, 1046, 1359, field (root), 43, 321, 325, 339, 375, 380, 383, 621, 663, 665, 885, 886, 887, 1046, 1235, field (other), 38, 339, 401, 621, 656, 659, 887, 905, 1043, 1046, 1480, 1481, 1520, herbage, 401, 416, 1220, horticultural, 432, 433, 447, 660
mixtures, + chloramben, 905, + naptalam, 327
morphology, 659
residues in soil, 597
volatility, 1324, 1359
weeds, 24, 38, 43, 102, 321, 325, 327, 340, 375, 380, 383, 401, 416, 619, 621, 625, 629, 633, 656, 659, 660, 663, 665, 885, 886, 887, 905, 1043, 1046, 1220, 1324, 1359, 1520
Carbamate, di-isopropylthiol, *S*-2,3,3,-trichloroallyl *NN*-, (tri-allate)
crops, field (cereal), 621, 625, 629, 633, 886, 887, 935, 1046, 1181, field (root), 380, 621, 887, 1046, field (other), 887, 905, 1043, horticultural, 433, 660
weeds, 380, 621, 625, 629, 633, 660, 886, 905, 1043, 1046, 1181
Carbamate, di-isopropyl, 2,3,6-trichlorobenzyl-, 1864
Carbamate, dipropylthiol, *S*-ethyl *NN*-, (EPTC)
crops, field (cereal), 5, 9, 339, 355, 356, 641, 642, 643, 648, 690, 900, 1045, 1186, 1187, 1235, 1492, field (root), 5, 9, 45, 46, 48, 339, 381, 388, 390, 391, 392, 663, 664, 665, 884, 885, 913, 1046, 1206, 1207, 1210, 1529, field (other), 9, 35, 38, 339, 435, 656, 659, 660, 673, 705, 885, 1046, 1202, 1203, 1491, 1492, 1522, 1532, fruit, 96, 98, 466, 998, 1233, 1262, herbage, 5, 11, 416, 682, horticultural, 63, 64, 66, 101, 433, 435, 436, 447, 449, 704, 706, 707, 1235, 1236, 1239, 1572, 1573, ornamental, 76, 451, 457, 458, 711, 1257, 1578, plantation, 109, 110, 1619, 1621, other, 938, 1540, 1541
granular, 48, 64, 101, 110, 355, 390, 391 392, 436, 457, 458, 642, 1458, 1529, 1541, 1573, 1619
metabolism, 561
mixtures, +chloramben, 449, + 2,4-D, 101, +dalapon, 45, + endothal, 45, +TCA, 45
morphology, 656, 659
residues in soil, 456
soil, 1451
soil-stabilizing mulch, 1459
translocation, 566
volatility, 1407, 1863
weeds, 5, 11, 101, 102, 110, 285, 356, 388, 416, 447, 458, 466, 519, 529, 641, 648, 659, 660, 663, 664, 665, 706, 885, 900, 998, 1045, 1046, 1206, 1207, 1233, 1234, 1235, 1492, 1522, 1529, 1541, 1572, 1684, 1689, 1692, aquatic, 167
Carbamate, ethyl di-*N*-butylthiol, 39 971, 1236
Carbamate, ethyl di-oleyl, 37
Carbamate, ethyl ethyl-*N*-butylthiol-
crops, field (cereal), 355, 390, 885, 1106, 1619, field (root), 390, 529, fruit, 96, horticultural, 435
weeds, 529
Carbamate, ethylthiol-, *S*-propyl *N*-butyl-*N*-, (PEBC)
compatibility, 1834
crops, field (cereal), 339, 354, 355, 642, 648, field (root), 42, 45, 339, 381, 390, 663, 664, 884, 885, 925, 1206, 1523, field (other), 37, 339, 705, 1199, fruit, 96, 725, 1262, horticultural, 63, 64, 71, 72, 433, 435, 436, 447, 660, 704, 961, 971, 977, 1232, 1236, 1239, 1246, 1248, 1249, 1252, ornamental, 1257, plantation, 1619, other, 1540, 1541
fungicidal effect, 1834
granular, 64, 355, 390, 971, 1232, 1248, 1541
metabolism, 1419
mixtures, +metham, 1249
pests, 1546
residues in soil, 1206
review, 1106
volatility, 1407
Carbamate (PEBC)—*cont.*
weeds, 42, 447, 529, 648, 660, 663, 664, 704, 725, 884, 885, 925, 1199, 1248, 1541
Carbamate, isopropyl *N*-(3-chlorophenyl), (chlorpropham)
analysis, 583, 1843
crops, field (cereal), 339, 441, 653, 882, 900, field (root), 45, 322, 339, 619, 665, 882, 920, 1529, field (other), 37, 38, 339, 364, 368, 396, 432, 433, 655, 882, 885, 905, 1212, 1480, 1481, 1538, forest, 497, 498, 1632, fruit, 90, 93, 445, 465, 474, 995, 998, 999, 1000, 1004, 1594, 1598, herbage, 55, 339, 419, 950, 1220, 1223, 1225, 1481, horticultural, 63, 64, 68, 69, 303, 432, 433, 956, 962, 964, 966, 967, 972, 973, 977, 1237, 1238, 1239, 1240, 1241, 1247, 1480, 1561, 1562, 1567, 1570, 1571, 1594, ornamental, 74, 80, 710, 882, 982, 984, 985, 1247, 1255, 1576, 1577, 1581, plantation, 100, 109, other, 404, 1481
dust, 322
formulation, 322, 368
granular, 64, 322, 368, 457, 458, 973, 977, 1562, 1581, 1632
irrigation, 285
mixtures, +chloramben, 368, + atrazine, 1576, +CDAA, 37, 1238, +chloroxuron, 982, + 2,4-D, 101, +dimethyl 2,3,5,6-tetrachloroterephthalate, 277, 1438, +dimexan, 80, 404, 1577, +dinoseb, 74, +diquat, 80, +diuron, 38, 322, 339, 433, 882, 905, 920, 982, 1480, 1561, 1562, 1570, 1576, +DNOC, 984, +fenuron, 38, 905, 982, 985, 995, 1247, 1570, 1576, 1594, +monuron, 93, +neburon, 982, +PCP, 80, 1576, 1577, +prometryne, 432, 956, 1480, +propazine, 404, +simazine, 38, 432, 982, 1576, 1577, +SMA, 966, +trietazine, 396
petroleum mulch, 1212
residues in soil, 592
soil adsorption, 1450
soil incorporation, 285
toxicology, 1137
volatility, 1407
weeds, 55, 101, 102, 285, 364, 368, 432, 882, 885, 900, 964, 972, 1000, 1223, 1225, 1237, 1238, 1330, 1562, 1567, aquatic, 1137
Carbamate, isopropyl *N*-(3,4-dichlorophenyl)- 1414
Carbamate, isopropyl *N*-phenyl-, (propham)
crops, field (cereal), 1046, field (root), 41, 43, 93, 321, 322, 325, 383, 882, 920, 921, 926, 1046, 1480, 1481, 1523, field (other), 3, 38, 364, 396, 403, 927, 1520, fruit, 90, 93, herbage, 55, 1223, 1225, horticultural, 433, 882, 927, ornamental, 81
dust, 322
formulation, 322
granular, 322, 920

Carbamate (propham)—*cont.*
mixtures, +chlorpropham, 454, +dalapon, 882, +2,4-DES, 93, 667, +dimexan, 325, 383, 741, +diuron, 322, 882, 920, +endothal, 41, 43, 93, 321, 322, 383, 920, 921, 926, 927, 1480, 1481 1523 +fenuron, 38, +fertilizer, 882, +linuron, 921, +neburon, 882, +propham, 882, +TCA, +2-methoxy-4,6-bis (methoxypropylamino)-1,3,5-triazine, 433
weeds, 41, 43, 55, 81, 364, 383, 882, 1046, 1223, 1225, 1330, 1520, 1562, susceptibility, 374
Carbamate, methyl-3,4-dichlorophenyl-, (swep),
crops, field (cereal), 1193, 1194, field (root), 5, 46, field (other), 39, fruit, 1591, horticultural, 5, 63, ornamental, 1257, other, 1541
mixtures, +propanil, 1194
review, 1106
weeds, 5, 39, 46, 1193, 1194
Carbamate, *N*-propyl di-*N*-propylthiol-
crops, field (cereal), 355, field (root), 390, 1529, field (other), 1199, horticultural, 63, plantation, 1619, other, 1541
review, 1106
volatility, 1863
weeds, 529, 1199, 1619
Carbamic acid, sodium-*N*-methyldithio-, (metham)
additive, 280
crops, forest, 1632, horticultural, 324, 1249, ornamental, 85, 451, 1255
disease control, 1165
phytotoxic impurity, 280
soil moisture, 1454
soil nitrogen, 1358
weeds, 185, 324, 959
Carbamates, structure and activity, 1769
Carbonate, calcium, 148
Carbothiolate, ethyl - 1 - hexa - methyleneimine, 570, 1812
Carboxylic acid, β-indolyl, 560
Carboxylic acid, 7-oxabicyclo(2,2,1)-heptane-2,3-di-, (endothal)
carbohydrates, 885
crops, field (cereal), 650, field (root), 41, 42, 43, 45, 93, 321, 322, 325, 381, 383, 664, 885, 920, 921, 926, 1204, 1480, 1481, 1523, field (other), 37, 927, herbage, 55, horticultural, 435, 927, 960, 961, 1235, 1562, ornamental, 81, 85, 89, 986, 1576
defoliation, 454
desiccant, 395, 428, 903, 1548
di-oleylamine, 37, 45, 961
formulation, 172, 321, 381, 650, 664, 926, 1036, 1135, 1136, 1664, 1854
granular, 173, 510, 511, 1033, 1036, 1314
incorporation methods, 1203
mixtures, +ammonium sulphate, 903, +2,4-D, 81 +dalapon, 42, 45, +EPTC, 45, +fenoprop,
Carboxylic acid (endothal) mixtures —*cont.*
173, 1667, +magnesium chloride, 903, +propham, 41, 43, 93, 321, 322, 383, 920, 921, 926, 927, 1480, 1481, 1523, 1562, +SMA, 903, +TCA, 381, 664
oleylamine, 37, 45
persistence in water, 758, 1135
soil, 41, 42
taint in fish, 173
toxicology, 173, 515, 590, 758, 850, 1036, 1135, 1136, 1854
weeds, 41, 55, 81, 89, 325, 374, 664, 782, 885, 986, 1055, 1235, 1562, aquatic, 167, 172, 173, 507, 510, 511, 515, 517, 758, 1032, 1033, 1036, 1135, 1314, 1664, 1667, susceptibility, 374
wetters, 42, 81
Carboxylic acids, ω and α-phenoxyalkyl, 833
Carboxylic acids, phenoxy, 1769
Carboxymethoxy - phenylmethylene-rhodamines see Rhodamines, carboxymethoxyphenyl - methylene
Carcinostatic effects, herbicides, 1086
CDAA, see Acetamide, *NN*-diallyl-chloro-
CDEC, see Carbamate, 2-chloroallyl *NN*-diethyldithio-
Cereals, 10, 1500
frost after herbicides, 628
Chelates, 1802
Chemical ploughing, see Sward destruction
Chloralchloracetamide, see Acetamide, chloralchlor-
Chloramben, see Benzoic acid, 3-amino-2,5-dichloro-
Chlorate+borate, see Borate+chlorate mixtures
Chlorate, calcium, 148
Chlorate, sodium
contaminating seed boxes, compost etc., 73
crops, fruit, 98, ornamental, 453, 983, plantation, 101
defoliant, 53, 394
desiccant, 394
leaching, 292
mixtures, +amitrole, 1051, +atrazine, 142, 794, +monuron, 537, +simazine, 537, 794
residues in soil, 183
review, 269
toxicology, 1137
uncultivated ground, 142, 537, 794
weeds, 183, 324, 453, 778, 1051, 1178, 1319, 1682, 1686, 1727, aquatic, 1137
Chlorate pentaborate, sodium, 52, 53, 678
Chlorazine, see Triazine, 2-chloro-4,6-bisdiethylamino-1,3,5-
Chlordane, see Indane, 1,2,4,5,6,7-10,10 - octachloro-4,7,8,9-tetrahydro-4,7-methylene-
Chloride, benzene hexa-, 98
Chloride, 2-chloroethyl-trimethylammonium, 896, 1407
Chloride, *p*-di-isobutylphenoxyethoxy ethyl dimethyl benzylammonium, 850, 1164
Chloride, magnesium, 81, 903
Chloride, potassium, 148
Chloride, sodium, 43, 81, 381
Chloride, tributyl-2,4-dichlorobenzyl phosphonium, 1425
Chloride, trichlorobenzyl
crops, field (cereal), 33, 357, 640, 643, 650, 651, 703, 884, 898, 1188, field (root), 46, 389, 884, horticultural, 63, 690, 702, 703, 966, 972, 973, 1238, 1241
granular, 357, 389
mixtures, +CDAA, 33, 46, 63, 357, 358, 389, 640, 643, 650, 651, 690, 702, 703, 884, 898, 966, 972, 973, 1238, 1241
weeds, 63, 1188
Chloride, trimethyl sulphonium, 37, 1202, 1829
Chloromethylphenylglycine, see Glycine, chloromethylphenyl
Chloropicrin
crops, forest, 1629, fruit, 90, 1593, ornamental, 1593
mixtures, +dichloropropenes, 1629, +methyl bromide, 90, 185, 293, 1583, 1593, +propargyl bromide, 185, 1583, 1593
weeds, 185, 293, 1583
Chloroxuron, see Urea, *N'*-4-(4-chlorophenoxy)phenyl - *NN* - dimethyl-
Chlorpropham, see Carbamate, isopropyl *N*-(3-chlorophenyl)-
Colchicine, 1807
Competition
Agropyron repens v. Impatiens parviflora, 212
Agropyron repens v. wheat, 1730
Agropyron repens and *Agrostis gigantea v.* wheat and beet, 618
Allium vineale v. wheat, 192
Amaranthus retroflexus and *Setaria glauca v.* maize, 1752
analysis of experiments, 211, 542
Avena fatua v. cereals, 805
Bromus mollis and *Erodium* sp. *v. Holocarpha virgata*, 1703
Cenchrus ciliaris v. Triodia pungens and *Eucalyptus papuana*, 213
Chondrilla juncea v. wheat, 21
Cyperus esculentus v. sweet potato, 1728
Empetrum nigrum v. Pteridium aquilinum, 1757
grass weeds *v.* field crops, 800
Lemna spp. *v. Salvinia natans*, 1369
Linaria vulgaris v. grass, 1699
Polygonum spp. *v.* kale, 1068
Rumex crispus v. Rumex obtusifolius, 804
Setaria lutescens v. maize, 800
Striga asiatica v. maize,
Tussilago farfara v. cereals, 780
weeds *v.* barley and rape, 1729
weeds *v.* blueberries, 1596
weeds *v.* crops, 800, 1069, 1353
weeds *v.* weeds, 543
Conference
British Weed Control Conference, (1962), 1907
British Weed Control Council—Crop Production in a Weed-Free Environment, Symposium, 1462

Control,
biological, see also Control, management, grazing
Canadian work up to 1959, 557
diseases, 534, 814
fish, 361, 757, 1674
insects, 199, 534, 688, 756, 786, 813, 1079, 1375, 1381
plant competition, 757
snails for aquatic weeds, 176, 177, 757
cultural,
arid-zone farming, 34
axe for frilling, 607
cultivator, Kortland duck-foot, 528
cutter (brushwood), 1150, 1311
flail-type forage harvester, 421, 952
harrowing, 1504, 1623
comparison with herbicidal, 322, 385, 415, 1267, 1283
piler for brush, 1150
plough with wide cutting blade, 51
ploughing, 1176, 1290, 1533
root harrow, 1150
root lever for *Lantana camara*, 1656
rotovator for coffee, 1149, 1623
soil aeration, 1362, 1463
soil movement by tillage implements, 861
sweep-tillage, 284, 1504
tractor with frond deflectors, 866
wave-shaped rice cultivation, 654
weeder for cultivating between woody plants, 1151
weeder for tobacco, 1539
electrical, 313
fire,
flame cultivation, 32, 602, 1179, 1242, 1461, 1511, 1533
hill grazings, 1552
rangelands, 1553
stubble burning, 20, 768, 893
woody weeds, 159
management
bed cultivation, vegetables, 1231
bitumen mulch, 1903
crop rotation, 1177, 1178
fertilization, 1221, 1554
furrow planting, 117
grazing, geese, 1542
sheep, 200, 1552
plastic levees, 1519
row spacing, 1231
time of sowing, 1047
Coumarin, 1806
4-CPA, see Acetic acid, 4-chlorophenoxy-
Cresols, see Phenols
Cresylic acid, 1002, 1570
Cultivator, see control, cultural
Cultural methods
non-tillage and minimum tillage, 27, 28, 29, 346, 880, 881, 897, 928, 929, 930, 1172, 1173, 1174, 1182, 1183, 1184, 1231, 1268, 1360, 1462, 1463, 1494
stale-seedbed technique, 411, 417, 880, 928, 929, 942, 1175, 1565
Cutting, see Control, cultural
Cyanamide, calcium
crops, field (root), 912, 1524, fruit, 732, horticultural, 1567, disease, 1524
residues in water, 760
toxicology, 760
weeds, 1322, 1323, 1524, 1567, aquatic, 570
Cyanate, ammonium thio-
mixture, +amitrole, see triazole, 3 - amino - 1,2,4 - +NH_4SCN, +sodium fluoride, 198
Cyanate, methylisothio-, 474, 1629
Cyanate, potassium
crops, herbage, 1544, horticultural, 63, 69, 701, 1248, 1481
weeds, 1544
Cyclopentadiene, polychloro di-, isomers, 89 987

2,4-D, see Acetic acid, 2,4-dichlorophenoxy-
Dalapon, see Propionic acid, 2,2-dichloro-
2,4-DB, see Butyric acid, 4-(2,4-dichlorophenoxy)-
DCU, see Urea, dichloral
Defoliants, 11, 52, 53, 394, 454, 678
Denmark
approved products, 876
recommendations, horticultural crops, 1230
2,4-DEP, see Phosphite, tris-(2,4-dichlorophenoxyethyl)-
2,4-DES, see Sulphate, 2-(2,4-dichlorophenoxy)ethyl hydrogen
Desiccants, 101, 393, 394, 395, 428, 903, 946, 951, 1002, 1141, 1209, 1528, 1548, 1616, 1819, 1826
Desmetryne, see Triazine, 4-isopropylamino - 6 - methylamino-2-methylthio-1,3,5-
De-suckering, 1010
Di-allate, see Carbamate, di-isopropylthiol, *S*-2,3-dichloroallyl *NN*-
Dichlobenil, see Nitrile, 2-6-dichlorobenzo-
Dichlone, see Quinone, 2,3-dichloro-1,4-naphtha-
Dichloral urea, see Urea, dichloral
Dichlorobenzamide, see benzamide, dichloro-
Dichlorobenzoic acid see Benzoic acid, dichloro-
Dichlorprop, see Propionic acid, *dl* 2-(2,4-dichlorophenoxy)-
Dicryl, see Amide, *N*-(3,4-dichlorophenyl)methacryl-
Dimexan, see Sulphide, di(methoxythiocarbonyl)di-
Dinosam, see Phenol, 2-(1-methyl-*n*-butyl)4,6-dinitro-
Dinoseb, see Phenol, 2-(1-methylpropyl)-4,6-dinitro-
Diphenamid, see Acetamide, *NN*-dimethyldiphenyl-
Diphenatrile, see Nitrile, diphenylaceto-
Dipropalin, see Aniline, 2,6-dinitro-*NN*-dipropyl-4-methyl-
Diquat, see Azoniaphenanthrene-2*A*, 9,10-dihydro-8a,10a-di-
Diseases, 140, 141, 618, 736, 917, 1012, 1098, 1165, 1288, 1371
Disodium methyl arsonate, see Arsenicals
Diuron, see Urea, *N*-(3,4-dichlorophenyl)*NN*-dimethyl-
DMPA, see Thioate, *O*-2,4-dichlorophenyl) *O'*-methyl *N*-isopropyl phosphoroamido-
DNOC, see Phenol, 2-methyl-4,6-dinitro-
Drift, see Application
Droplet studies, see Application

East Germany
review of weed control research, 612
weed associations, 1739
Ecology, 550, 551, 1159, 1369, 1766, (see also species index)
Economics,
contract weed control service, 1168
cultural *v.* chemical control, 12, 68
expenditure on weed research, USA, 1470
factors in weed control, South America, 1476
forest nurseries, 126, 128
fruit, 467, 1266
herbicides in cereals, UK, 870, 890
herbicide prices, UK, 878
herbicide use, Germany, 1488, 1899
Sweden, 1501
UK, 1473
losses due to weeds, 9 States USA, 1895
ornamental nurseries, 1583
pest and weed control, 15
profitable use of farm chemicals (book), 316
range improvement, 430
woody weeds, 144, 1635, 1636, 1637, 1641, 1642
Ectodesmata, 1765
EDTA-copper, 1136
Electrical control, see Control, electrical
Endothal, see Carboxylic acid, 7-oxabicyclo(2,2,1)heptane-2,3-di-
EPTC, see Carbamate, *S*-ethyl *NN*-dipropylthiol-
Erbon, see Propionate, 2-(2,4,5-trichlorophenoxy)-ethyl 2,2-dichloro-
Ethanol, chloro-, 567, 568
Ethanol, trichlorobenzyl, 778
Ether, 2,4-dichlorophenyl 4-nitrophenyl, 1109, 1562
Extracts, toxic, see Toxic extracts

Fenac, see Acetic acid, phenyl, 2,3,6-trichloro-
Fenoprop, see Propionic acid, phenoxy, *dl* 2-(2,4,5-trichloro-
Fenuron, see Urea, *NN*-dimethyl-*N'*-phenyl-
Fenuron-TCA, see acetate, *NN*-dimethyl - *N'* - phenyluronium trichloro-
Fertilizers
availability in non-cultivated condition, 1463

Fertilizers—*cont.*
herbicide additives, 882, 1162, 1180, 1503, 1789
interaction, phosphorus and soil-applied herbicides, 1858
Finland
weeds of spring cereals, 1072
National Weed Campaign of 1962, 1166
Fire, control by, see Control, fire
Flame cultivation, see Control, fire
Flooding, see Control, management
Fluid seed drill, 1219
Fluoride, sodium, 198
Forage crops, see Pasture and forage crops
Forest nurseries, see Nurseries, forest
Forests (see also species index), 121, 125, 126, 307, 308, 1292, 1579
France
chemical weed control situation and prospects, 613
Frilling axe, 607
Frost and weed stands, 630
Fruit (see also species index), 6, 473, 990, 1008, 1268, 1601, 1602
Fruit nurseries, see Nurseries, fruit
Fungicidal activity of herbicides, see Herbicides, fungicidal activity
Furans, 5-hydroxybenzo-, 1093

Genetics, 265
Ghana, weeds, 1075
Gibberellic acid, 44, 1095, 1382
Glycines, chloromethylphenyl, 1436
Granular herbicides, see Herbicides, granular
Granule applicators, see Application granules, applicators
Grassland, UK survey, 405, 407
Grazing for weed control, see Control, management, grazing
Great Britain, see United Kingdom

Harrowing, see Control, cultural
Harvester, flail-type, 421, 952
Helicopters, see Application, aerial
Heptachlor, 1225
Herbage seed crops, 8, 416
Herbicides
adsorption, 1450
additives, 42, 280, 296, 327, 417, 522, 603, 733, 1032, 1213, 1682, 1833, 1884
antagonism, 567, 1092
approved products, UK, 617
beneficial effects other than weed control, 16
book, herbicides (Czech), 1811
carriers, invert emulsions, 1878, 1879
carcinostatic effects, 1086
compatibility, 1163, 1420, 1834
contaminating compost and seed boxes, 73
contaminating straw, 980, 1448, 1851
contaminating water supplies, 595, 1852
contaminating milk, 282
decomposition in soil, 286, 288, 289, 290, 856, 857, 1088
detoxification factors in plants, 258

Herbicides—*cont.*
environment, 1828, 1832, 1142, 1797
+fertilizers, 882, 1162, 1180, 1503, 1789
fungicidal activity, 1834
granular, 64, 299, 1458, 1883, (see also entries under specific herbicides)
injury symptoms from growth regulators, 1875
irrigation, 285
labour force, reduction of, 1475
leaching, 291, 292, 327, 591, 829, 1457
pH, 1450, 1829
physiology
absorption, 1780, 1784, 1788
amino acids, 1096
carbohydrates, 1097, 1401, 1787, 1794, 1796
defoliation, 1394
enzymes, 255, 257, 560, 561, 825, 1389, 1390, 1391, 1392, 1399, 1400, 1783
genetics, 265
light, 262, 1416, 1798, 1831
maturation, 1095
metabolism, 251, 255, 561, 828, 1081, 1085, 1100, 1103, 1384, 1396, 1404, 1412, 1419, 1421, 1423, 1425, 1439, 1768, 1769, 1785, 1786, 1803, 1825
morphology, 40, 342, 343, 652, 666, 696, 699, 911, 984, 1082, 1083, 1092, 1096, 1393, 1398, 1403, 1410, 1765, 1801
nitrogen, 1096, 1402
nucleic acid, 1423
penetration, 564, 1081, 1094
photosynthesis, 823, 830, 1408, 1414, 1415, 1420, 1424, 1627, 1791
proteins, 1096, 1796
respiration, 259, 825, 1397, 1398, 1796
retention, 1417
reversal of photoperiod, 1800
review, 1385, 1386, 1770
translocation, 248, 249, 558, 559, 564, 566, 821, 822, 826, 828, 829, 1081, 1101, 1102, 1104, 1395, 1404, 1405, 1407, 1409, 1413, 1418, 1422, 1767, 1768, 1772, 1773, 1776, 1788
transpiration, 261, 1795
residues in milk, 282
residues in plants, 274, 588, 1081, 1089, 1404, 1825, 1786, 1851, 1897
residues in soil, 133, 290, 455, 456, 457, 591, 592, 593, 594, 596, 597, 602, 855, 859, 883 885 974, 989, 1051, 1143, 1144, 1451, 1495, 1510, 1857
row spacing and efficiency, 359, 369
seed germination, 260, 1406, 1535, 1627, 1631, 1681, 1684
seed treatment interaction, 702
soil, 822, 853, 854, 858, 1452, 1858
soil microflora, 287, 591, 1453
+soil stabilizing mulch, 1212, 1459, 1463

Herbicides—*cont.*
structure and activity, 273, 1099, 1411, 1436, 1769, 1816, 1817, 1830
synergy, 730
tainting food, 173, fruit and vegetables, 851
tainting tobacco, 1540
testing, see Special techniques
toxicology, 1358, 1847
bees, 849, 1138, 1139, 1140, 1482, 1856
birds, 1138
crustacaea, 1855
fish, 167, 173, 722, 758, 760, 762, 849, 850, 1035, 1036, 1135, 1137, 1138, 1312, 1317, 1439, 1853, 1854, 1855
fish food organisms, 1136, 1312
frogs, 762
insects, 1449
livestock, 849, 1133, 1134, 1439, 1848
man, 586, 587, 758, 849, 1825, 1848, 1849, 1850
rats, 758, 1132, 1407, 1818, 1823
turtles, 762
varietal response to, 331, 338
volatility, 1407, 1457, 1458, 1836, 1876
water pollution, 1852
water quality, 589, 1676
wetters, see Herbicides, additives
Hexachloride, benzene, see Chloride, benzene hexa-
Hexachloroacetone, see Acetone, hexachloro-
Hexanoic acids, phenoxy, 1782
Hormones, 1080
Horticultural crops, 6, 62, 431, 955, 1230, 1255, 1268, 1556, 1557, 1558, 1559

IAA, see Acetic acid, indole
Indane, 1,2,4,5,6,7,10,10-octachloro-4,7,8,9 - tetrahydro - 4,7-methylene-, (chlordane)
crops, herbage, 1225, ornamental, 89, 460, 714, 715, 716, 717, 718, 719, 723, 987, 1589
granular, 460, 714, 715, 716, 718, 719, 723
mixtures, +arsenicals, 1589, +dimethyl 2,3,5,6-tetrachloroterephthalate, 1438
residues in soil, 723
weeds, 460, 714, 715, 716, 717, 718, 719, 723
Indexing
Cordonnier method, 1908
Indole acetic acid, see Acetic acid, indole
Industrial sites, see Weeds of uncultivated ground, industrial sites
Insecticides,
compatibility with herbicdes, see Herbicides, compatibility
phytotoxicity, 1835
Italy
Ammannia auriculata in rice fields, 1750
aquatic weeds, 1657
recommendations, 1171
weed associations, 1740, 1741

Kinetins, 1382
Kojic acid, 1821
Kerosene, see Oil

Labour force, reduction of, 1475
Landscaping with herbicides, 81, 791
Leaves, ectodesmata, 1765
Legislation,
  Agriculture (Poisonous Substances) Regulations (1963), 1848
  brush control, Belgium, 208
  herbicides for roadsides, USA, 793
  Nassella tussock control, New Zealand, 1040
  pesticide use, UK, 1848
  pesticide use, Michigan, 1896
  registering pesticides, USA, 873
  residues, 282, 847, 1897
  weed seeds, 61, 1738
  weeds, California, 210, 320
Leucine, *N*-(2,3,6-trichlorobenzoyl)-L, 1820
Light, see Herbicides, physiology
Linuron, see Urea, *N'*-(3,4-dichlorophenyl) - *N* - methoxy - *N*-methyl-

Machinery, sward seeding, 1183, 1218, 1219
Magnesium chloride, see Chloride magnesium
Malaya
  weeds, identification, 1279, 1280, 1625
Management and weed control, see Control, management
MCPA, see Acetic acid, phenoxy, 4-chloro-2-methyl-
MCPB, see Butyric acid, phenoxy, 4-(4-chloro-2-methyl)-
Mecoprop, see Propionic acid, phenoxy, *dl* 2-(4-chloro-2-methyl)-
Metham, see Carbamic acid, *N*-methyldithio-
MH, see Pyridazine, 1,2,3,6-tetrahydro-3,6-dioxo-
Minimum tillage, see Cultural methods
Monochloroacetate, sodium, see Acetate, sodium monochloro-
Monolinuron, see Urea, *N'*-(4-chlorophenyl) - *N* - methoxy - *N*-methyl-
Monuron, see Urea, *N'*-(4-chlorophenyl)-*NN*-dimethyl-
Monuron-TCA, see acetate, *N'*-(4 - chlorophenyl) - *NN'* - dimethyluronium trichloro-
Morphology, see Herbicides, physiology
Mulch,
  +herbicides, see herbicides+soil stabilizing mulch
  machine for, 1894
  plastic, 91, 92, 441, 470, 708, 998, 1005, 1264, 1356, 1618, 1894
  sawdust, 91

NAA, see Acetic acid, naphthyl-
Naphthaquinones, see Quinones, naphtha-
Naphthyl acetic acid, see Acetic acid naphthyl
Naptalam, see Phthalamic acid, *N*-1-naphthyl-
Nature reserves, see Wild life
Neburon, see Urea, *N*-butyl-*N'*-dichlorophenyl)-*N*-methyl-
Netherlands
  aquatic weeds, 1732
  legislation, 1825
  recommendations, 1480, 1556, 1557
New Zealand
  extension work, 1169, 1477
  government measures, Nassella tussock control, 1040, 1041
  interaction, native and introduced plant spp., 806
  rosette weeds, 1050
  weeds of Canterbury, 945
Nitrate, sodium, 3, 325
Nitrile, 2,6-dichlorobenzo-, (dichlobenil)
  crops, field (cereal), 32, 339, 340, 354, 624, 640, 650, 690, 1188, field (root), 46, 339, 388, 1211, field (other), 37, 339, 432, 433, 657, 660, 673, 705, 964, 1541, forest, 115, 724, 741, fruit, 321, 466, 724, 997, 1007, 1261, 1272, 1273, herbage, 416, horticultural, 63, 432, 433, 436, 971, 972, 975, 977, 1272, ornamental, 89, 451, 454, 497, 709, 1272, 1582, plantation, 740
  formation from related compounds in plants, 1797
  granular, 497, 724, 975, 1541
  mixtures, +2,4-D, 1670
  residues in soil, 859
  weeds, 285, 321, 340, 416, 432, 433, 523, 624, 650, 657, 660, 740, 790, 972, 1188, 1272, 1273, 1541, aquatic, 1670
Nitrile, 3,5-dibromo-4-hydroxybenzo-, 1816, 1817
Nitrile, 3,5-di-iodo-4-hydroxybenzo-, 1816 1817, 1818
Nitrile, diphenylaceto-, (diphenatrile)
  carbohydrates, 885
  crops, field (root), 885, herbage, 1225, horticultural, 1236, ornamental 87, 713, 717, 988, 1582, 1589
  weeds, 87, 988
Nitrile indolylaceto-, 1085, 1777
Nitrile, trichlorophenylaceto-, 1287, 1670
Nitrite, calcium, 148
Non-tillage, see Cultural methods
Nozzles, see Application, nozzles
Nutrient+herbicide mixtures, see herbicides+fertilizers
Nurseries, forest, 118, 119, 122, 124, 127, 132, 450, 494, 495, 496, 741, 742, 1014, 1579

Oil
  crops, field, (other), 1533, forest, 124, 737, 741, 1273, fruit, 90, 108, 480, 737, 1278, horticultural, 68, 101, 102, 303, 442, 697, 698, 699, 724, 967, 1247, 1560, 1567, 1570, ornamental, 88, 498, 982, 983
  mixtures, +PCP, 108
  photosynthesis, 262
  residues in soil, 1866
  weed, 88, 303, 442, 479, 498, 1278, woody, 1311, 1655
Ornamentals, 6, 8, 74, 75, 450, 455, 1256, 1579
Orotic acid, 1801
Oxazolidine dione, 3-(*p*-chlorophenyl)-5-ethyl-2,4-, 885

Parasitic weeds, see Weeds, parasitic
Paraquat, see Bipyridylium-2A, 1,1'-dimethyl-4,4'-
Pasture and forage crops, 10
Pasture renovation, 405, 406, 407, 408, 409, 410, 412, 413, 414
Paths, see Uncultivated ground, paths
PCA, see Pyridazinone, 5-amino-4-chloro-2-phenyl-3-
PCP, see Phenol, pentachloro-
PEBC, see Carbamate, ethylthio-, *S*-propyl *N*-butyl-*N*-
Penetration, see Herbicides, physiology
Pentanamide, *N*-(3-chloro-4-methylphenyl)-2-methyl-, (solan)
  activity, 1799
  crops, field (cereal), 339, field (root), 46, 103, 339, 388, 670, field (other), 339, 657, 905, 1538, fruit, 993, 1563, herbage, 339, horticultural, 63, 433, 435, 448, 449, 615, 695, 697, 699, 700, 707, 956, 969, 970, 977, 978, 1232, 1235, 1246, 1247, 1248, 1250, 1251, 1272, 1563, ornamental, 1563, other, 404
  granular, 975
  light, 1798
  mixtures, +CDEC, 695, +chloramben, 699, +dimethyl 2,3,5,6-tetrachloroterephthalate, 695, 1248, +dicryl, 699, +simazine, 63, 449
  photosynthesis, 1798
  soil stabilizing mulch, 1563
  synergy, 1420
  weeds, 36, 433, 435, 448, 657, 670, 695, 969, 970, 1235, 1247, 1248, 1251, 1272
Pentanamide, *N*-(3,4-dichlorophenyl)-2-methyl-,
  activity, 1799
  crops, field (other), 432, 1538, fruit, 96, 466, 1233, horticultural, 432, 690, 697, 699, 700, ornamentals, 498, 710
  mixtures, +dalapon, 458, +simazine, 466
  weeds, 432, 458, 466, 498, 699, 1233
Pentanamide, *N*-phenyl-2-methyl-, 1799
Pests, 156, 169, 1073, 1546
Phenol, 4,6-dinitro-2-isopropyl-, 366
Phenol, 6-dinitro-2,4-dichloro-, 650
Phenol, 2 - methyl - 4,6 - dinitro-, (DNOC)
  acetate, 1481

Phenol (DNOC)—*cont.*
analysis, 587
crops, field (cereal), 18, 26, 323, 325, 340, 347, 441, 647, 879, 1480, 1487, 1490, field (other), 3, 325, 366, 400, 675, 1480, 1481, 1521, field (root), 3, 46, 383, 1208, 1481, 1525, forest, 741, 1631, fruit, 473, 477, 1598, 1604, herbage, 947, 949, 1481, 1547, 1548, horticultural, 102, 441, 1237, 1567, ornamental, 77, 453, 498, 983, 984, plantation, 1621
desiccant, 47, 394, 395
formulation, 340, 383, 400, 949
mixtures, +chlorpropham, 741, 984, +dalapon, 477, +MCPA, 366, 675, 1480, +MCPB, 366, +simazine, 1604
photosynthesis, 26
residues in crops, 1851
roguing potatoes, 916
shoot removal from fruit trees, 1010
toxicology, 587, 1137, 1141
translocation, 1102
weeds, 323, 340, 347, 383, 879, 1487, 1567, 1604, aquatic, 1137, susceptibility, 18
Phenol, 2-(1-methyl-*N*-butyl)4,6-dinitro-, (dinosam), 90
Phenol, 2-(1-methylpropyl)-4,6-dinitro-, (dinoseb)
acetate, 39, 321, 325, 340, 344, 362, 364, 905, 914, 1255, 1480, 1487, 1508, 1521, 1524, 1548
amine, 37, 38, 39, 45, 56, 102, 322, 324, 362, 364, 370, 398, 905, 1000, 1235, 1255, 1510
ammonium, 38, 102, 303, 322, 324, 344, 362, 364, 383, 398
analysis, 1841
crops, field (cereal), 18, 32, 322, 323, 325, 340, 344, 354, 435, 637, 640, 641, 647, 650, 690, 1480, 1487, 1501, 1508, 1510, field (root), 46, 93, 322, 325, 383, 388, 389, 394, 395, 667, 670, 724, 911, 914, 1207, 1340, 1524, field (other), 3, 37, 38, 39, 322, 325, 362, 364, 365, 366, 370, 398, 432, 435, 655, 656, 657, 660, 661, 905, 966, 1197, 1202, 1480, 1481, 1521, forest, 456, fruit, 90, 96, 432, 465, 477, 997, 998, 1000, 1265, 1272, 1273, 1563, herbage, 56, 303, 637, 682, 947, 1040, 1547, 1548, horticultural, 63, 64, 102, 303, 321, 432, 441, 700, 975, 1235, 1563, ornamental, 74, 76, 454, 457, 711, 712, 983, 1255, 1563, 1576, 1582, plantation, 1621
desiccant, 394, 395
granular, 64, 96, 389, 457, 712, 975, 1340
growth regulation, 1384
mixtures, +CDAA, 37, 39, 435, 660, 1273, +CDEC, 435, +chlorpropham, 74, 432, +2,4-D-, 1501, +dimethyl 2,3,5,6-tetrachloroterephthalate, 277, 388, 1438, +dalapon, 32, 46, 63, 93, 354, 383, 667, +diuron, 354, +DMPA, 39, 63, 371, 661,
Phenol (dinoseb), mixtures—*cont.*
+MCPA, 322, 365, 366, 398, 1501, +MCPB, 366, 966, +naptalam, 1202, +3-nitro-2,5-dichlorobenzoic acid, 655, +TCA, 45, 911, 997, 1340
morphological effects, 661
pH, 1829
soil adsorption, 1450
soil-stabilizing mulch, 1563
weeds, 39, 322, 323, 324, 325, 362, 388, 398, 441, 637, 641, 650, 657, 660, 661, 670, 947, 966, 1197, 1207, 1265, 1487, 1508, susceptibility, 18
Phenol, pentachloro-, (PCP)
analysis, 842, 1839, 1840
crops, field (cereal), 647, 650, field (root), 3, 43, 321, 1208, 1480, field (other), 368, 737, forest, 741, fruit, 108, 488, horticultural, 321, 446, 956, 1247, 1248, 1570, ornamental, 80, 498, 983, 984, 1576, 1577, plantation, 111, 1284, 1617
desiccant, 101
granular, 368
mixtures, +atrazine, 794, +CDAA, 368, +chlorpropham, 741, 1576, 1577, +2,4-D, 1617, +fenuron, 1576, +MCPA, 368, +oil, 108, 321, +simazine, 794, +TCA, 1284
uncultivated ground, 794
weeds, 368, 488, 498, 650
Phenols, dinitro, 615
Phenols, growth-modifying effect, 563
Phenols, nitro, 615, 822, 823
Phenols, resins from wood thermolysis, 270, 271
Phenoxyacetic acids, see Acetic acids, phenoxy
Phenoxybutyric acids, see Butyric acids, phenoxy
Phenoxypropionic acids, see Propionic acids, phenoxy
Phenyl acetamides, see Acetamides, phenyl
Phenyl acetic acid, see Acetic acid, phenyl
Phenyl benzoics, see Benzoics, phenyl
Phenyl carbamates, see Carbamates, phenyl
Phosphite, tris-(2,4-dichlorophenoxyethyl), (2,4-DEP)
crops, field (cereal), 339, 354, 642, 644, field (root), 46, 339, 388, 389, 390, 391, field (other), 339, forest, 456, fruit, 725, 726, 1233 1262 1263, herbage, 339, horticultural, 63, 432, ornamental, 710, plantation, 100
formulation, 390
granular, 389, 391, 725, 726, 1263
weeds, 63, 388, 389, 644, 725, 726, 1233, 1262
Phosphonium chloride, see Chloride phosphonium
Phosphorotrithioate, *S,S,S*-tributyl-, 11, 52, 53
Photosynthesis, see Herbicides, physiology
Phthalamic acid, *N*-1-naphthyl-, (naptalam)
compatibility, 327
Phthalamic acid (naptalam)—*cont.*
crops, field (cereal), 327, 328, 339, field (root), 48, 339, 389, 390, 1210, 1211, field (other), 339, 673, 705, 1198, 1202, 1203, forest, 456, 497, 1015, fruit, 1563, horticultural, 432, 960, 975, 1560, 1563, ornamental, 710, 1563, plantation, 100
formulation, 339
granular, 48, 389, 975
mixtures, +dimethyl 2,3,5,6-tetrachloroterephthalate, 277, 1438, +di-allate, 327
sodium, 339, 1560
soil-stabilizing mulch, 1563
weeds, 327, 328, 1438
Phthalic acid, 2,3,5,6-tetrachloro-tere-,
compatibility, 722
crops, field (cereal), 101, 354, 650, 1186, field (root), 388, 390, 921, 1210, 1211, 1529, field (other), 37, 101, 885, 1202, 1203, 1212, 1538, forest, 457, 709, 1018, fruit, 90, 463, 466, 724, 996, 1262, 1263, 1592, herbage, 1225, horticultural, 63, 64, 72, 101, 432, 433, 436, 447, 695, 700, 701, 707, 960, 966, 971, 975, 1234, 1236, 1239, 1240, 1246, 1248, ornamental, 74, 76, 79, 87, 88, 89, 457, 460, 461, 605, 709, 714, 715, 716, 717, 718, 719, 722, 987, 988, 989, 1582, 1589, 1590, other, 1540
granular, 64, 447, 457, 460, 466, 605, 714, 716, 719, 722, 1263
mixtures, +CDEC, 1438, +chloramben, 1246, +chlordane, 717, 1438, +chlorpropham, 277, 1438, +2,4-D, 277, 1186, 1438, +DMPA, 457, +dinoseb, 277, 388, 1438, +naptalam, 277, 1438, +simazine, 466, +solan, 695, 1248, +trietazine, 388
morphology, 661
soil, 72
soil-stabilizing mulch, 1212
toxicology, 722
weeds, 63, 72, 87, 88, 89, 101, 388, 433, 460, 650, 661, 714, 715, 716, 717, 718, 719, 722, 885, 966, 987, 988, 989, 1186, 1246, 1248, 1262, 1438, 1529
Phthalics, methyl esters, 578
Physiology, herbicides, see Herbicides, physiology
Picolinic acid, 4-amino-3,5,6-trichloro-, 1433, 1434
Piler, brush, 1150
Plant cuticle, and pesticide uptake, 604
Plants, herbicide residues, see Herbicides, residues in plants
Plastic sheeting, see Control, management, mulching
Ploughing, see Control, cultural
Poisonous weeds, see Weeds, poisonous
Polychlorocyclopentadiene, see Cyclopentadiene, polychloro-
Polythene mulching, see Control, management, plastic mulching

Potassium chlorate, see Chlorate, potassium
Potassium chloride, see Chloride, potassium
Potassium cyanate, see Cyanate, potassium
Power line rights-of-way, see Uncultivated ground, power line rights-of-way
Prometon, see Triazine, 4,6-bisisopropylamino-2-methoxy-1,3,5-,
Prometryne, see Triazine, 4,6-bisisopropylamino - 2 - methylthio-1,3,5-
Propane, 1,3-dichloro-, 474
Propanil, see Propionamide, *N*-(3,4-dichlorophenyl)-
Propanol, trichlorobenzyl, 778
Propanol, trichlorobenzyloxy-, 1275, 1287, 1682
Propazine, see Triazine, 2-chloro-4,6-bisisopropylamino-1,3,5-
Propene, 1,3-dichloro-, 474, 1593
Propenes, dichloro-, 1629
Propham, see Carbamate, isopropyl *N*-phenyl-
Propionamide, *N*-(1′,2′,4′-triazole)-2(4 - chloro - 2 - methylphenoxy)-, 1340
Propionamide, *N*-(1′,2′,4′-triazole) 2,4-dichlorophenoxy)-, 1340
Propionamide, *N*-(3,4-dichlorophenyl)-, (propanil)
compatibility, 1192
crops, field (cereal), 35, 36, 339, 360, 899, 900, 901, 902, 1190, 1191, 1194, 1225, field (root), 46, 103, 339, 383, field (other), 339, herbage, 339, horticultural, 432, 615, 737, 1232, 1252, ornamental, 88
mixtures, +swep, 1194
mode of action, 1100
pests, 1546
weeds, 35, 36, 46, 88, 101, 360, 899, 900, 901, 902, 1191, 1192, 1194, 1225
Propionate, 2-(2,4,5-trichlorophenoxy) - ethyl 2,2 - dichloro-, (erbon)
crops, field (cereal), 1188, fruit, 98
mixtures, +dalapon, 1682, + TCA, 1682
weeds, 1038, 1188, 1344, 1682, 1727, aquatic, 1031
Propionic acid, 2,2-dichloro-, (dalapon)
analysis, 843, 844, 1122
antagonism, 181
bulbs, destruction of groundkeepers, 983
crops, field (cereal), 7, 32, 348, 350, 352, 354, 769, 895, 1518, 1680, 1790, field (root), 42, 45, 46, 93, 103, 383, 387, 389, 664, 667, 724, 1208, 1523, field (other), 7, 323, 364, 401, 402, 417, 432, 737, 930, 1198, 1535, 1537, 1682, forest, 115, 458, 475, 523, 1015, 1293, 1632, fruit, 93, 94, 101, 103, 463, 474, 475, 476, 477, 478, 487, 730, 990, 1261, 1272, 1273, 1278, 1599, 1600, 1611, herbage, 54, 179, 401, 402, 410 411, 425, 427, 683, 684, 944, 948, 1226, horticultural, 63, 321, 523, 882, 976,
Propionic acid (dalapon), crops —*cont.*
ornamentals, 458, plantation, 101, 109, 113, 180, 489, 490, 491, 492, 740, 1285, 1615, 1622, 1623, 1624, other, 481, 733
decomposition in soils, 284, 290
formulation, 520, 521, 522, 523, 684, 790, 1032, 1040, 1632, 1659
granular, 389
growth regulation, 254, 1384
metabolism, 823
mitosis, 1535
mixtures, +amitrole, 93, 181, 295, 325, 364, 432, 444, 499, 506, 538, 881, 930, 1226, 1537, 1550, +amitrole-T, 432, 730, +atrazine, 458, 475, 794, 1261, +cacodylic acid, 681, +chlorazine, 45, +2,4-D, 103, 325, 350, 477, 1273, +2,4-DB, 427, 683, +diquat, 46, +dinitrophenols, 615, +diuron, 103, 425, 478, +dinoseb, 32, 46, 93, 354, 383, 667, 724, +DMPA, 45, +DNOC, 477, +endothal, 42, 664, +EPTC, 45, +fenoprop, 103, 195, 1040, 1314, +fertiliser, 882, +MCPA, 7, 463, 477, 1272, 1273, 1624, 1660, +neburon, 427, +prometon, 1682, +propham, 882, + simazine, 7, 93, 352, 458, 475, 478, 538, 794, 1261, 1293, 1622, +2,3,6-TBA, 1624, +TCA, 499
pasture renovation, 93, 409, 410, 411, 417, 881, 930, 1217, 1226, 1227, 1550
penetrants, 603
pests, 1546
pH, 1829
phenol production in *Agropyron repens*, 827
post-spraying treatment, 623
residues in soil, 290, 592, 1143
sward destruction, 1530
synergy, 181, 681
temperature, 1318
toxicology, 850
translocation, 566, 826, 1101
uncultivated ground, 103, 206, 539, 794, 1683
volume rate, 295
weeds, 7, 94, 101, 115, 179, 180, 181, 182, 195, 197, 206, 321, 324, 348, 350, 364, 387, 389, 401, 410, 418, 425, 432, 444, 458, 474, 475, 487, 492, 495, 497, 499, 518, 519, 520, 521, 522, 523, 538, 623, 664, 733, 740, 764, 790, 944, 948, 1038, 1040, 1178, 1227, 1273, 1278, 1318, 1320, 1325, 1327, 1328, 1329, 1330, 1337, 1537, 1615, 1623, 1624, 1662, 1680, 1682, 1683, 1686, aquatic, 325, 506, 509, 769, 1031, 1032, 1033, 1314, 1507, 1518, 1658, 1659, 1660, 1662, 1665, susceptibility, 54
wetters, 42, 417, 522, 603, 733, 1032, 1682
Propionic acid, *dl* 2-(4-chloro-2-methylphenoxy)-, (mecoprop)
crops, field (cereal), 7, 18, 25, 322, 323, 324, 329, 331, 337, 338, 441,
Propionic acid (mecoprop) crops —*cont.*
628, 636, 780, 875, 894, 1480, 1487, field (root), 386, herbage, 324, 418, 527, 1048, 1481, ornamental, 87, 986
formulation, 322, 386, 1048, 1055, 1654
granular, 418
mixtures, +2,4-D, 322, 986, 1481, +MCPA, 322, 1480
weeds, 7, 25, 87, 103, 197, 324, 329, 337, 418, 527, 628, 636, 780, 782, 894, 986, 1048, 1051, 1053, 1055, 1577, woody, 101, 1654, susceptibility, 18
Propionic acid, *dl* 2-(2,4-dichlorophenoxy)-, (dichlorprop)
crops, field (cereal), 322, 329, 330, 333, 336, 1358, herbage, 56, horticultural, 964, plantation, 1615
formulations, 283, 322
microbial decomposition in soil, 857
mixtures, +MCPA, 1358
side-chain degradation, 857
toxicology, 283, 1853
weeds, 322, 329, 330, 333, 336, 964, woody, 154, 1638
Propionic acids, phenoxy, activity, 1781
Propionic acid, 2,3,3-trichloro-, 1208, metabolism, 1782
Propionic acid, *dl*-2(2,4,5-trichlorophenoxy)-, (fenoprop)
analysis, 1444
crops, field (cereal), 7, 329, 338, 885, 1051, 1188, 1189, forest, 1630, 1632, fruit, 731, herbage, 423, 686, 885, 1481, 1549, ornamental, 85, 87, 89, 461, 1233, plantation, 104, 1615
formulation, 101, 102, 167, 173, 283, 589, 1031, 1032, 1033, 1189, 1330, 1615, 1654, 1664, 1670
granular, 87, 173, 1032, 1057, 1666, 1702
leaching, 292
mixtures, +arsenicals, 461, +atrazine, 794, +2,4-D, 87, 89, 461, +dalapon, 195, 1040, 1314, 1632, +endothal, 173, 1667, +MCPA, 730, +simazine, 794, +tricalcium arsenate, 89
pollution of water, 1852
rangelands, 1229
solvents, 1833
tainting of fish, 173
toxicology, 173, 283, 510, 850, 1853
translocation, 1407
uncultivated ground, 102, 794
weeds, 7, 87, 89, 102, 103, 104, 195, 329, 423, 461, 686, 731, 737, 750, 753, 775, 885, 1031, 1040, 1048, 1051, 1188, 1189, 1233, 1330, 1549, 1702, 1706, 1727, aquatic, 167, 171, 173, 175, 507, 510, 512, 589, 759, 761, 1030, 1032, 1033, 1034, 1051, 1314, 1664, 1666, 1667, 1670, woody, 101, 103, 1027, 1028, 1229, 1303, 1304, 1311, 1638, 1654, susceptibility, 1331
wetter, 1706

Pumps, see Application, pumps
Purines, 1775
Pyridazine, 1,2,3,6-tetrahydro-3,6-dioxo-, (MH)
analysis, 846, 1127, 1128, 1129, 1445
crops, field (cereal) 1514 fruit, 99, 471, 1562, plantation, 109, other, 846
genetics, 265
histology, 265
morphology, 99, 265
penetration, 99
pests, 1546
photoperiodic induction reversal, 1800
residues in soil, 846
respiration, 1421
retarding shoot growth, 1681
runner control, 724
structure and activity of derivatives, 1411
uncultivated ground, 796, 797, 1063
weeds, 471, 1681
Pyridazone - 6,1 - phenyl - 4 - amino - 5-chloro-, (PCA)
compatibility, 835
crops, field (cereal), 328, field (root), 43, 375, 376, 377, 378, 379, 662, 835, 921, 922, 923, 924, 1112, 1481, horticultural, 835
leaching, 835
mixtures, +OMU, 922, 923, 924, +OMU+BiPC, 921
residues in soil, 835
weeds, 328, 376, 377, 378, 379, 662, 835, 921, 1112, susceptibility, 924
Pyridyls, bi-, 1769
Pyrimidine, 2-benzylmercapto-4,6-dimethyl-, 960

Quinone, 2 - amino - 3 - chloro - 4 - naphtha, 1033
Quinone, 2,3-dichloro-1,4-naphtha-, (dichlone), 850

Radiation, ecological effects, 1766
Radioisotopes for herbicide research, 1771
Rangelands, 10, 429, 430, 750, 1229, 1553, 1554, 1555
Recommendations
Eastern Canada, 1160
Italy, 1171
Netherlands, 1480, 1556, 1557
Sweden, 1255
United States, 318
Florida, 958
Illinois, 1483
Maine, 1484
Michigan, 1559
Nebraska, 1485
New York, 1549
Texas, 1560
Wisconsin, 1558
Residues of herbicides, see Herbicides, residues
Respiration, see Herbicides, physiology
Reviews
auxins, 247
Reviews—*cont.*
bipyridylium herbicides, 574
biology and control of wild oats, 1364
biology of garden weeds, 218, 219
Canadian work on biological weed control, 557
cell structure and plant growth hormone action, 1386
chemical control of bracken, 1708
economics of pest control, 1167
germination of weed seeds, 1355
growth regulators, 1383
herbicides, desiccants and defoliants, 868
occurrence and control of weeds, (Germany), 326, 611
physiological response of plants to herbicides, 1385, 1901
plant growth substances, past, present and future, 1770
pre-emergence herbicides, 572, 1107
research and practice of weed control in West Germany, 611
soil-acting herbicides, 852
soil fumigation, 1146
tillage and chemical weed control, 1174
triazine herbicides, 573, 1860
woody plant control, USA, 1302
weed control, East Germany, 612
weed control, France, 613
weed control, Turkey, 614
weed control, horticultural crops, 62
weed research, Canada, 615
weedkillers, 245
Rhodamines, carboxymethoxyphenylmethylene-, 1815
Rhodesia, weeds of Sabi Valley, 535
Roadsides, see Uncultivated ground, roadsides
Rotations, see Control, management
Rotovator, see control, cultural
Romania, identification of weed seedlings, 1379
Row spacing, see Cultural methods

Sawdust mulch, see mulch, sawdust
Seedbeds, 321
Seed germination and herbicides, see Herbicides, seed germination
Seeds, legislation, 61
Seeds, weed, see Weed seeds
Silicate, sodium, 393
Simazine, see Triazine, 2-chloro-4,6-bisethylamino-1,3,5-
Simeton, see Triazine, 4,6-bisethylamino-2-methoxy-1,3,5-
Simetryne, see Triazine, 4,6-bisethylamino-2-methylthio-1,3,5-
SMA, see Acetate, sodium monochloro-
Sodium acetate, see Acetate, sodium
Sodium arsenite, see Arsenicals
Sodium arsenate, see Arsenicals
Sodium chlorate, see Chlorate, sodium
Sodium chloride, see Chloride, sodium
Sodium fluoride, see Fluoride, sodium
Sodium monochloroacetate, see Acetate, sodium monochloro-
Sodium nitrate, see Nitrate, sodium
Soil
aeration, 1362, 1463
compaction
and cultural control, 29
elimination by nitrogen treatment, 1466
minimum tillage and rainfall infiltration, 1494
nitrogen availability, 1530
root penetration, 1360
conditions and herbicidal effectiveness, 549
erosion, prevention by chemical ploughing, 940
fauna and nitrification, effect of herbicides, 284
improvement after scrub burning, 953
oxygen, root requirement, 1361, 1362
phosphorus, interaction with herbicides, 1858
stabilising, mulch + herbicide, 1212, 1459, 1563
sterilization, 293, 1146, 1358, 1454, 1593, 1629
structure and herbicide use, 474, 895
structure, vegetation and mulches, 1464, 1465
weed flora, 548, 549
Solan, see Pentanamide, *N*-(3-chloro-4-methylphenyl)-2-methyl-
South America
weed control problems, 1476
Special techniques
apparatus for cutting sections of plant material, 1431, 1809
apparatus for measuring stem curvature, 831
apparatus for measuring injury to plant tissue, 266
diagramatic presentation of data from herbicide trials, 616
expressing results from herbicide trials, 319
inoculating with *Striga* sp., 1376
marker, aluminium flake, 115
pollen sampler, 817
radioisotopes for herbicide research, 1771
schlieren system for detecting convection phenomena from plants, 1877
statistical techniques, 211, 542, 706
testing herbicides, 585, 1440
testing herbicides against woody species, 505, 1304
testing herbicide content, 281
Sprout inhibition, 116, 131, 1479
Stale-seedbed technique, see Cultural methods
Statistics
brush control, Texas, 751
expenditure on weed research, USA, 1470
aerial application herbicides, USA (1959), 301, (1960), 1882
Statistical techniques, see Special techniques
Stubble burning, see Control, fire

Sulphamate, ammonium (AMS)
crops, forest, 150, fruit, 731, 1596, ornamental, 983
mixtures, +2,4,5-TBA, 197
sucker inhibition, 116
uncultivated ground, 142, 1715
weeds, 116, 150, 197, 1061, 1344, 1727, woody, 103, 116, 142, 497, 737, 752, 1311, 1651, 1715
Sulphate, ammonium, 903, 1002
Sulphate, copper, 850, 1317
Sulphate, copper dihydrazinium, 850
Sulphate, 2-(2,4-dichlorophenoxy)-ethyl hydrogen-, (2,4-DES)
crops, field (root), 103, 667, field (other), 677, 1203, forest, 456, 1015, 1273, fruit, 90, 93, 445, 464, 992, 995, 997, 998, 1000, 1004, 1262, 1263, 1563, 1594, horticultural, 1563, ornamental, 710, 985, 1563, 1576, plantation, 100
granular, 1263
mixtures, +fenuron, 93, 667 985, 995, 997, +propham, 92, 667
rain, 985
+soil-stabilising mulch, 1563
weeds, 998, 1262, 1576
Sulphide, di(methoxythiocarbonyl)-di-, (dimexan)
crops, field (root), 321, 325, 383, 1480, 1481, forest, 497, 741, horticultural, 321, 432, 1480, ornamental, 454, 498, 1577, other, 404
mixtures, +chlorpropham, 404, 432, 454, 497, 741, 1577, +OMU+BiPC, 321, +propham, 325, 383, 741
weeds, 432
Sulphide, tetramethyl thiuram di-, 1225
Sulphonamide, *N*-(β-*O*,*O*-di-isopropyl - dithiophosphorylethyl)-benzene, 1812
Sulphonium chloride, see Chloride, sulphonium
Sulphuric acid, 983, 1247, 1560, 1570
Sward destruction, 91, 405, 406, 407, 408, 409, 410, 411, 412, 413, 414, 415, 417, 928, 929, 930, 939, 940, 942, 1216
Sward renovation, 406, 407, 408, 409, 410, 411, 412, 425, 952, 1217, 1218, 1226, 1227, 1228
Sward, tillage implements, 1183, 1218, 1219
Sward sowing machines, 1183, 1218, 1219
Sweden
distribution of weeds, 1353
recommendations, forest nurseries, 118
horticultural crops, 1255
Sweep tillage, see Control, cultural
Switzerland,
approved plant protection products, 1962, 1482
Synergy, see Herbicides, synergy

2,4,5-T, see Acetic acid, phenoxy, 2,4,5-trichloro-
Tainting by herbicides, see Herbicides, tainting
2,3,6-TBA, see Benzoic acid, 2,3,6-trichloro-
Terephthalate, see Phthalate, 2,3,5,6-tetrachlorotere-
Tetrachloroterephthalate, see Phthalate, dimethyl 2,3,5,6-tetrachlorotere-
Thiadiazine, 3,4,5,6-tetrahydro-3,5-dimethyl - 2 - thio - 2*H* - 1,3,5-, (dazomet)
crops, forest, 1632, horticultural, 1249, ornamental, 85
physical properties, 1115
soil nitrogen, 1358
toxicology, 1115
weeds, 779, 959, 1115, 1275
Thiolcarbamates, see Carbamates, thiol
Thioate, tributylphosphorotri-, 678
Thioate, *O*-(2,4-dichlorophenyl)-*O'*-methyl *N*-isopropylphosphoroamido-, (DMPA)
crops, field (root), 45, 103, 381, 389, field (other), 37, 371, fruit, 1233, herbage, 1225, horticultural, 63, 965, 971, 973, 1235, 1236, 1239, 1246, ornamental, 87, 88, 89, 457, 718, 719, 720, 721, 986, 987, 988, 989, 1233, 1257, 1259, 1589, 1590, other, 1540
granular, 389, 718, 720, 989, 1246, 1590
irrigation, 285
mixtures, +dimethyl 2,3,5,6-tetrachloroterephthalate, 457, +dalapon, 45, 63, +dinoseb, 63, 371, +fenoprop, 1233
morphology, 720
soil incorporation, 285
weeds, 37, 63, 87, 88, 89, 285, 371, 389, 718, 719, 721, 986, 987, 988, 989, 1233, 1246
Tillage, see Control, cultural
Toxic extracts
growth inhibitor from *Agropyron repens*, 824
growth inhibitor from *Setaria glauca*, 545
growth inhibitor from *Artemisia vulgaris*, 1426
growth inhibitor from xylem sap, 1091
phenol from *Agropyron repens* after dalapon treatment, 827
root extracts, effect on weed and crop species, 807
from decayed plant material, 618, 1731
Toxic exudates, 1370
Toxicity of herbicides, see Herbicides, toxicity
Tracers, see Special techniques, radioisotopes
Translocation, herbicides, see Herbicides, translocation
Transpiration, herbicides, see Herbicides, transpiration
Triazine, 2-allylamino-4-chloro-6-isopropylamino-1,3,5-
crops, field (cereal), 339, 340, field (root), 339, 910, field (other), 339, 967, herbage, 339, horticultural, 432, 434, 966, 967
weeds, 340
Triazine, 2-chloro-4,6-bisdiethylamino-1,3,5-, (chlorazine), 45, 197, 434, 1546
Triazine, 2-chloro-4-ethylamino-6-isopropylamino-1,3,5- (atrazine)
analysis, 584
crops, field (cereal), 9, 11, 29, 31, 32, 101, 178, 321, 323, 340, 347, 348, 352, 353, 354, 356, 358, 359, 435, 628, 639, 640, 641, 642, 644, 645, 648, 651, 690, 885, 898, 944, 965, 1046, 1185, 1186, 1232, 1235, 1245, 1497 1507 1508, 1509, 1510, 1511, 1521, 1549, 1680, field (root), 46, 103, 323, 391, 619, 668, 910, 913, 1046, 1208, 1235, 1340, field (other), 101, 907, 1521, forest, 132, 136, 457, 458, 475, 497, 709, 741, 1273, 1628, fruit, 93, 96, 98, 103, 463, 473, 474, 475, 476, 487, 619, 724, 728, 737, 990, 992, 997, 999, 1233, 1261, 1276, 1607, 1618, herbage, 3, 30, 680, 950, horticultural, 63, 64, 101, 321, 432, 441, 447, 706, 964, 974, 1233, 1235, ornamental, 82, 89, 103, 455, 457, 458, 709, 710, 711, 1576, 1582, plantation, 100, 101, 103, 109, 110, 111, 113, 740, 1011, 1284, 1285, 1619, 1621, other, 481, 1282
decomposition in soil, 290
detoxification factors in plants, 258
fallow, 1225
granular, 64, 82, 110, 354, 391, 447, 455, 458, 538, 644, 724, 1340
leaching, 291
metabolism, 561
mixtures, +amitrole, 142, 321, 432, 794, 897, 1011, 1346, +amitrole-T, 352, 474, 709, 767, 794, +CDAA, 651, +chlorpropham, 1576, +2,4-D, 110, 794, +dalapon, 458, 475, 794, 1261, +dinoseb, 1245, +diuron, 1233, +fenac, 352, +fenoprop, 794, +paraquat, 96, 737, +PCP, 794, +simazine, 110, 481, 767, 898, 1186, 1245, +sodium arsenite, 794, +sodium chlorate, 142, 794, +2,4,5-T, 794, +TCA, 794
penetration, 1422
photosynthesis, 830, 1794
rainfall, 1828
residues in soil, 290, 455, 593, 974, 1861
row width, 359
soil adsorption, 1450
soil microflora, 1453
sward destruction, 897
temperature, 1828
toxicology, 1137
transpiration, 261, 1795
translocation, 566
uncultivated ground, 142, 201, 321, 538, 794, 1346
weeds, 89, 103, 178, 197, 323, 348, 359, 432, 447, 455, 458, 463, 475, 497, 518, 519, 529, 619, 641, 644, 645, 648, 668, 680, 706, 740, 764, 767, 778, 785, 885, 898, 907, 910, 964, 1011, 1045, 1046, 1185, 1186, 1232, 1233, 1234, 1235,

Triazine (atrazine), weeds—*cont.* 1323, 1497, 1507, 1549, 1618, 1680, 1692, aquatic, 325, 1137
Triazine, 2-chloro-4-ethylamino-6-(3 - methoxypropylamino) - 1,3,5 -, 434, 661, 961
Triazine, 2 - chloro - 4,6 - bisethyl - amino-1,3,5-, (simazine)
antagonism, 117
crops, field (cereal), 9, 11, 31, 32, 101, 178, 191, 323, 337, 340, 347, 348, 352, 895, 898, 944, 965, 1186, 1207, 1496, 1497, 1498, 1507, 1508, 1509, 1510, 1521, field (root), 46, 103, 323, 383, 909, 910, 911, 914, 1208, 1340, 1524, 1526, field (other), 7, 38, 101, 191, 323, 325, 362, 363, 433, 907, 964, 1321, 1521, 1661, forest, 115, 117, 120, 122, 123, 127, 130, 132, 135, 1015, 1016, 1017, 1233, 1261, 1273, 1293, 1294, 1407, 1627, fruit, 90, 93, 94, 96, 97, 98, 101, 102, 103, 321, 990, 992, 993, 994, 995, 996, 997, 999, 1003, 1004, 1008, 1009, 1233, 1261, 1262, 1271, 1272, 1273, 1274, 1594, 1598, 1599, 1600, 1603, 1604, 1605, 1607, forest, 1628, herbage, 3, 30, 55, 416, 949, 950, 1225, horticultural, 63, 70, 72, 101, 321, 432, 956, 960, 964, 965, 974, 975, 1235, 1237, 1562, ornamental, 76, 77, 79, 80, 82, 85, 89, 103, 982, 985, 1255, 1273, 1575, 1576, 1577, 1578, 1580, 1581, 1582, 1589, plantation, 100, 101, 103, 109, 110, 111, 113, 1011, 1285, 1288, 1618, 1619, 1621, 1622, other, 422, 938, 1282
detoxification factor in plants, 258, 1793
disease, 1288, 1371
granular, 82, 109, 110, 323, 383, 975, 993, 1033, 1235, 1581, 1828
leaching, 291
light, 1792
mode of action, 1792
metabolism, 561
mixtures, +amitrole, 110, 418, 1009, 1011, 1598, 1603, +amitrole-T, 1261, 1271, +atrazine, 110, 898, 1186, +chlorpropham, 38, 432, 982, 1576, +2,4-D, 110, +dalapon, 7, 93, 352, 1261, 1293, 1622, +dimexan, 80, +diquat, 80, 1274, +DNOC, 1604, +paraquat, 96, 101, 911, 1274, +PCP, 80, 1577, +prometon, 110, 1031, +solan, 63, +TCA, 103
morphology, 260, 343
photosynthesis, 737, 830
polysulphides and breakdown in soil, 1859
rainfall, 1828
residues in soil, 290, 974, 1144, 1451, 1861
respiration, 259
retention, 1417
soil microflora, 1453
synergy, 730
temperature, 1828
toxicology, 850, 1136, 1137, 1673
Triazine (simazine)—*cont.*
translocation, 1412, 1413
uncultivated ground, 142, 201, 1346
weeds, 7, 55, 63, 80, 89, 97, 100, 101, 123, 130, 178, 182, 191, 323, 337, 340, 348, 349, 362, 416, 418, 432, 907, 910, 993, 995, 1011, 1031, 1186, 1225, 1233, 1261, 1272, 1321, 1323, 1330, 1496, 1497, 1498, 1507, 1524, 1562, 1576, 1604, 1618, aquatic, 1033, 1137, 1659, 1661, 1673, woody, 1028, 1294
Triazine, 2 - chloro - 4 - diethyl - amino - 6 - ethylamino - 1,3,5 -, (trietazine)
crops, field (cereal), 347, 354, field (root), 46, 388, 884, 909, 910, 911, 1235, field (other), 37, 39, 396, 1046, fruit, 96, 993, 1262, herbage, 950, horticultural, 72, 102, 432, 974, 1244, ornamental, 103, plantation, 111, other, 938
dry weather, 347
granular, 354
mixtures, +chloramben, 884, +chlorpropham, 396, +dimethyl 2,3,5,6-tetrachloroterephthalate, 388, +dinoseb, 388, +propazine, 884
soil, 72
weeds, 39, 46, 388, 910, 993, 1046, 1538
Triazine, 2 - chloro - 4 - diethyl - amino - 6 - isopropylamino - 1,3,5-, (ipazine)
crops, field (cereal), 32, 434, field (root), 670, 910, 1235, field (other), 50, 966, 1538, fruit, 1233, horticultural, 63, 434, 699, 965, 968, 974, 1233, 1240
leaching, 291
residues in soil, 1861
weeds, 197, 434, 670, 699, 910, 965, 966, 1233, 1538
Triazine, 2 - chloro - 4 - isopropyl-amino - 6 - methylamino - 1,3,5 -, 650
Triazine, 2 - chloro - 4 - isopropyl - amino - 6 - (3 - methoxypropyl - amino)-1,3,5-, 7, 966, 967, 974
Triazine, 2 - chloro - 4,6 - bisiso-propylamino-1,3,5-, (propazine)
crops, field (cereal), 33, 328, 347, 352, 358, 650, 651, field (root), 884, 1340, field (other), 396, 432, 705, 964, 966, 1197, forest, 1015, 1016, 1233, 1273, 1628, fruit, 463, 725, herbage, 950, horticultural, 432, 433, 699, 724, 964, 965, 966, 967, 968, 970, 974, 1233, 1235, 1237, 1480, 1567, ornamental, 458, 463, 1582, other, 404
decomposition in soil, 33, 593
detoxification factors in plants, 258
dry weather, 347
humus, 594
mixtures, +CDAA, 651, +chloramben, 884, +chlorpropham, 404, 423, +trietazine, 884
residues in soil, 974
Triazine (propazine)—*cont.*
translocation, 1413
weeds, 33, 197, 328, 404, 432, 458, 463, 650, 699, 725, 965, 966, 970, 1567
Triazine, 4 - ethylamino - 6 - iso - propylamino - 2 - methoxy - 1,3,5-, (atraton)
crops, field (cereal), 101, field (root), 103, 909, field (other), 101, 368, 1197, fruit, 103, horticultural, 101, 1240, ornamental, 103, plantation, 103, 113, 1619
granular, 368
leaching, 291
mixtures, +amitrole-T, 1619, +dalapon, 1682, +paraquat, 1619, +TCA, 1682
residues in soil, 1861
translocation, 1102
uncultivated ground, 103
weeds, 368, 1682
Triazine, 2 - chloro - 4 - ethylamino-6 - (3 - methoxypropylamino) - 1,3,5-, 434, 661, 963, 1582
Triazine, 4,6 - bisethylamino - 2 - methoxy - 1,3,5 -, (simeton), 938, 950
Triazine, 4 - ethylamino - 6 -iso - propylamino - 2 - methylthio - 1,3,5-, (ametryne)
crops, field (cereal), 329, 330, 339, 884, 965, 966, field (root), 103, 339, 911, field (other), 50, 339, 368, 884, 931, 963, 967, 1213, 1538, fruit, 103, horticultural, 432, 884, 962, 963, 965, 967, 974, 1244, 1252, ornamental, 103, plantation, 103, 113
granular, 368
toxicology, 1033
weeds, 329, 330, 368, 884, 911, 931, 966, 1538, aquatic, 1033
Triazine, 4,6 - bisethylamino - 2 - methylthio-1,3,5-, (simetryne)
crops, field (cereal), 339, 340, 884, field (root), 339, 909, field (other), 339, 931, 966, 967, horticultural, 432, 966, 967, 974
weeds, 340, 931, 966
Triazine, 4,6 - bisisopropylamino - 2-methoxy-1,3,5- (prometon)
crops, field (root), 103, 668, field (other), 737, 1197, fruit, 103, herbage, 950, horticultural, 435, 965, 966, 1235, ornamental, 103, plantation, 103, 109, 110, 113, 740, 1011, 1619
mixtures, +amitrole, 110, +2,4-D, 110, +dalapon, 1682, +simazine, 110, 1031, +TCA, 1682
properties, 1717
retention, 1417
toxicology, 1717
uncultivated ground, 142, 1717
weeds, 110, 197, 749, 778, 1031, 1682, 1717
Triazine, 4,6 - bisisopropylamino - 2 - methylthio - 1,3,5 -, (prometryne)
crops, field (cereal), 329, 330, 339, 898, field (root), 103, 339, 670, 911, 1210, 1340, field (other), 37, 339, 368, 657, 737, 884, 905, 907,

Triazine (prometryne), crops—*cont.*
963, 1197, 1212, 1213, 1538, fruit, 103, 724, 997, herbage, 416, horticultural, 63, 432, 698, 884, 956, 962, 963, 965, 966, 967, 1232, 1240, 1244, 1252, 1340, 1480, 1566, 1568, ornamental, 103, plantation, 103, 113, 740, 1011, other, 404
granular, 368
mixtures, +chlorpropham, 432, 956, 1480
+soil-stabilising mulch, 1212
weeds, 329, 330, 368, 404, 416, 432, 657, 670, 740, 884, 898, 907, 911, 1011, 1197, 1213, 1538, 1568
wetter, 330
Triazine, 4 - isopropylamino - 6 - methoxypropylamino-2-methoxy-1,3,5-, 340
Triazine, 4 - isopropylamino - 6 - methoxypropylamino - 2 - methyl - thio-1,3,5-, 573
Triazine, 4 - isopropylamino - 6 - methylamino - 2 - methylthio-1,3,5- (desmetryne), 698, 931, 932, 933, 966, 967, 974, 1562
Triazine, 2 - methoxy - 4,6 - bis-(methoxypropylamino) - 1,3,5 -, 433, 434, 573
Triazine, 2,4-bis(3-methoxypropylamino) - 6 - methylthio - 1,3,5-, 39, 367, 642, 645, 1045
Triazines
photosynthesis, 1384
residues in soil, 1860
review, 573
structure and activity, 434, 1769, 1830, 1860
uncultivated ground, 1712
Triazole, 3-amino-1,2,4-, (amitrole)
additives, 327, 531
analysis, 582, 588, 845, 1126, 1844
antagonism, 181
bulbs, destruction of ground keepers, 983
carbohydrates, 1796
crops, field (cereal), 323, 327, 328, 352, 895, 930, field (root), 339, 387, 1208, field (other), 339, 364, 432, 875, 930, 1537, forest, 457, 458, 495, 523, 741, fruit, 96, 445, 476, 477, 478, 588, 727, 729, 731, 990, 1009, 1261, 1272, 1277, 1278, 1596, 1598, 1600, 1603, herbage, 339, 1226, horticultural, 432, 523, ornamental, 6, 457, 709, 984, plantation, 100, 109, 110, 740, 1011, 1621, 1626
decomposition in soil, 284, 288, 290
defoliant, 52
fallow, 284, 1225
germination, 1418
growth regulation, 1384
metabolism, 561
mixtures, +ammonium thiocyanate (see Triazole, 3-amino-1,2,4 – NH_4SCN), +atrazine, 142, 321, 432, 709, 794, 897, 1011, 1346, +2,4-D, 325, 418, 477, 509, 1031, 1225, 1659, +dalapon, 93, 110, 181, 295, 325, 364, 432, 444, 499, 881, 930, 1226, 1537, 1550, +diuron, 321,
Triazole (amitrole), mixtures—*cont.*
477, 1261, +fenac, 203, +MCPA, 418, 477, 1031, +monolinuron, 477, +monuron, 110, 1346, +simazine, 110, 418, 457, 458, 478, 709, 727, 729, 740, 741, 794, 875, 1011, 1598, 1603, +sodium chlorate, 1051, +2,4,5-T, 499, +2,3,6-TBA, 503, +TCA, 364, 418, 509, 1659, +triazines, 538, +tributylphosphorotrithioate, 52
pests, 1546
pH, 1829
photodecomposition, 262
photosynthesis, 830
protein, 1796
residues in soil, 290, 592, 834, 1051
respiration, 1796
soil phosphorus, 1858
spreader-sticker, 96
sward destruction, 93, 881, 897, 1530
sward renovation, 881, 1550
synergy, 181, 730
temperature, 1318
toxicology, 850
translocation, 566, 1418
uncultivated ground, 321
industrial sites, 142, 203, 794, 1346
paths, 619
roadways, 203
volume rate, 295, 1329
weeds, 12, 101, 181, 182, 183, 197, 203, 323, 327, 328, 364, 387, 418, 432, 444, 477, 499, 503, 523, 531, 731, 740, 741, 771, 895, 1031, 1051, 1053, 1061, 1225, 1278, 1318, 1319, 1320, 1329, 1334, 1346, 1537, 1626, 1689, 1727, aquatic, 325, 509, 1031, 1033, 1507, 1659. woody, 1303, 1304
Triazole, 3-amino-1,2,4 +NH_4SCN, (amitrole-T)
crops, field (cereal), 339, 352, forest, 1294, 1630, fruit, 474, 730, 1261, 1271, horticultural, 197, 432, plantation, 1619
mixtures, + fenac, 1696, + simazine, 1261, 1271
review, 1825
sward destruction, 930, 942
uncultivated ground, 538, 619
weeds, 197, 352, 518, 524, 532, 533, 764, 767, 770, 772, 776, 781, 785, 1049, 1057, 1060, 1261, 1338, 1340, 1348, 1549, 1696, aquatic, 506, 516, 517, 1033, 1057, woody, 1029, 1294
wetter, 1304
Tetrachlorobenzoic acid, see Benzoic acid, tetrachloro-
Triazoles, 1769
Trichloroacetic acid, see Acetic acid, trichloro-
Trichlorobenzene, see Benzene, trichloro-
Trichlorobenzoic acid, see Benzoic acid trichloro-
Trichlorobenzyl chloride, see Chloride, trichlorobenzyl
Trichlorobenzylethanol see Ethanol, trichlorobenzyl-
Trietazine, see Triazine, 2-chloro-4-diethylamino-6-ethylamino-1,3,5-
Trifluralin, see Aniline, 2,6-dinitro-*NN*-dipropyl-4-trifluoromethyl-
Trimethylammonium chloride, see Chloride, trimethylammonium
Trinidad
weed succession on arable land, 801
Tri-iodobenzoic acid, see Benzoic acid, tri-iodo-
L-tryptophane, 1085
Tryptophane, 5-hydroxy peptide, 1090
Turf, 6, 84, 85, 86, 87, 88, 321, 1258, 1260, 1584, 1586, 1587
Turkey, review, weed problems, 614

Uncultivated ground, 201, 537, 538, 1716
airfields, 539
ditchbanks, 188
drainage tile to prevent weed growth, 877
drains, 539
farmyards, 1062
firebreaks, 147, 207, 1019
industrial sites, 203, 1064, 1065, 1066, 1346, 1435, 1710, 1717
paths, 147, 206, 207, 795, 1714
power line rights-of-way, 205, 207, 209, 1712, 1713, 1715
railways, 207, 794, 1345, 1651, 1711
roadsides, 142, 203, 207, 539, 792, 793, 796, 797, 1063, 1345, 1347
tropics, 1619
Underground application, see Application, sub-surface
United Kingdom
Agricultural Research Council Weed Research Organisation, 1467, 1468
Agriculture (Poisonous substances) Regulations 1963, 1848
approved herbicide products, 617
herbicide practice, survey S. England, 1473
herbicide practice, survey E. England, 622, 890
herbicide practice, survey Cheshire and N. Somerset, 869
herbicide practice, survey Vale of York, 871
herbicide prices, 878
herbicide practice in cereals, 1954–61, 890
notification and clearance scheme for pesticides, 1170
USSR
herbicide trials, 1270
crops, herbage, 1551
synthesis of herbicides, 836
USA
economic losses, from weeds, nine States, 1895
herbicides on market (1963), 1813
list of weeds, 763
public expenditure on weed research, 1470
recommendations, 318
President's Committee on pesticide hazards, 1847

USA—*cont.*
statistics, aerial application herbicides 301, 1882
State College and Universities and herbicide research, 1446
training workers in weed control techniques, 1475
Weed Society of America, objectives and programme, 1469
Colorado, State weed research, 1471
Florida, recommendations, horticultural crops, 958
Illinois, aquatic plants, 809, recommendations, 1483
Indiana, weeds of lawns, 1738
Iowa, weed seeds, 1736
Maine, recommendations, 1484
Michigan, legislation, pesticides, 1896, recommendations, horticultural crops, 1559
Mississippi, State Weed Committee, 1905, chemical weed control programme, 1906
Nebraska, recommendations, 1485
New York, recommendations, 1549
Pennsylvania, weeds, description, 1735
Texas, brush control statistics (1940–61), 751, recommendations, horticultural crops, 1560
Wisconsin, recommendations, horticultural crops, 1558, weeds, 1737
Uracil, 1801
Uracil, thio-, 1423, 1801
Uracil, 5 - bromo - 3 - isopropyl - 6-methyl-, (isocil)
crops, herbage, 941, plantation, 1615
properties, 278, 279
toxicology, 279
weeds, 278, 279, 536, 1682, 1822, 1824
Uracil, 3-butyl-6-methyl, 278
Uracil, 5-bromo-3-*s*-butyl-6-methyl, (bromacil), 1435, 1823
Urea, penetration, 1422
Urea, *N*-butyl-*N'*-(3,4-dichlorophenyl)-*N*-methyl-, (neburon)
analysis, 1125
crops, field (cereal), 7, field (root), 46, 103, 882, field (other), 362, 363, 432, 905, 1538 forest 1015 1273 fruit, 103, 996, 998, 1276, herbage, 55, 427, horticultural, 432, 882, ornamental, 79, 80, 89, 103, 303, 982, 986, plantation, 110, other, 938
mixtures, +chlorpropham, 982, +2,4-D, 89, +dalapon, 427, +fertiliser, 882, +propham, 882
weeds, 7, 55, 986
Urea, 1-(chloro-2-norbornyl)-3,3-dimethyl-, 436
Urea, *N'*-4-(4-chlorophenoxy)phenyl-*NN*-dimethyl-, (chloroxuron)
crops, field (other), 433, 905, 1538, fruit, 468, 995, horticultural, 956, 1254, ornamental, 459, 982, 1577
mixtures, +chlorpropham, 982
weeds, 433
Urea, *N'*-(4-chlorophenyl)-*NN*-dimethyl-, (monuron)
analysis, 274, 1124, 1125
crops, field (root), 668, 1207, field (other), 1537, 1538, 1661, forest, 1017, 1407, fruit, 93, 98, 476, 477, 480, 488, 724, 997, 1598, 1599, 1600, horticultural, 63, 303, 321, 441, 445, 706, 875, 964, 976, 1571, ornamental, 74, 1576, plantation, 109, 110, 111, 483, 1011, 1614, 1617
decomposition in soil, 290
flavin-sensitised photoreactions, 1791
leaching, 292
mixtures, +amitrole, 110, 1346, +borate, 98, 1038, 1057, +chlorate/borate, 1038, 1682, 1715, +chlorpropham, 93
morphology, 1103
photosynthesis, 1415
residues in soil, 274, 290, 885, 1144
soil adsorption, 1450
uncultivated ground, 142, 201, 537, 538, 1346, 1715
weeds, 63, 93, 110, 183, 778, 1038, 1057, 1178, 1207, 1346, 1614, 1682, 1822, aquatic, 1661, 1662, woody, 750, 1303
Urea, *N'* - (4 - chlorophenyl) - *N* - methoxy-*N*-methyl-, (monolinuron)
crops, field (cereal), 339, 340, field (root), 339, 383, 387, 914, 1254, field (other), 339, 362, 400, 1480, fruit, 476, 477, horticultural, 432, 433, 698, 967, 1254, ornamental, 459.
weeds, 362, 383, 387, 400, 914, 967
Urea, *N'*-cyclo-octyl-*NN*-dimethyl-, (OMU)
crops, field (cereal), 323, 340, 342, 1498, field (root), 43, 102, 103, 321, 322, 323, 373, 374, 375, 376, 377, 383, 909, 920, 921, 922, 923, 924, 1480, 1481, 1523, field (other), 38, 1538, horticultural, 432, 433, ornamental, 80, plantation, 109, 110, other, 938
granular, 110, 323, 938
mixtures, +BiPC, 38, 43, 80, 102, 103, 109, 110, 321, 322, 323, 340, 342, 373, 374, 375, 376, 377, 383, 938, 1106, 1323, 1480, 1481, 1523, +PCA, 921, 922, 923, 924
morphology, 342
review, 1106
weeds, 323, 340, 373, 374, 375, 376, 377, 432, 1323, 1496, 1498, 1523, 1538, susceptibility, 374
Urea, dichloral, (DCU), 403, 885
Urea, *N'* - (3,4 - dichlorophenyl) - *NN*-dimethyl-, (diuron)
additives, 11
analysis, 274, 1124, 1125
crops, field (cereal), 11, 101, 339, 354, 1186, field (root), 383, 391, 882, 911, 920, 921, field (other), 11, 38, 101, 339, 432, 885, 905, 1197, 1202, 1212, 1214, 1480, 1532, 1534, 1537, 1538, fruit, 93, 96, 97, 98, 992, 997, 1009, 1233, 1261, 1265, 1272, 1276, 1598, 1600, 1603, 1611, herbage, 425, 1223, horticultural, 63, 101, 321, 432, 433, 882, 972, 1561, 1562, 1570, ornamental, 80, 982, 983, 1576, 1578, 1581, plantation, 100, 101, 110, 113, 1011, 1284, 1288, 1614, 1617, other, 9, 50
decomposition in soil, 290
granular, 322, 391, 920, 1581
mixtures, +amitrole, 321, 1009, 1261, +atrazine, 1233, +bromacil, 1823, +chlorate/borate, 98, +chlorpropham, 38, 322, 339, 433, 882, 905, 920, 982, 1480, 1561, 1562, 1570, 1576, +dalapon, 425, +dinoseb, 354, +fertiliser, 882, +isocil, 1824, +paraquat, 96, 425, 1011, +propham, 322, 882, 920, 921
photosynthesis, 1214, 1414
pH, 1829
rain, 50
range improvement, 429
residues in plants, 274
residues in soil, 290, 882
soil phosphorus, 1858
+soil-stabilising mulch, 1212
uncultivated ground, 201, 321
volume, 1214
weeds, 63, 93, 97, 100, 101, 103, 110, 383, 425, 432, 885, 911, 972, 1197, 1214, 1223, 1233, 1272, 1311, 1538, 1562, 1614, 1822, woody, 1655
wetter, 1214
Urea, *N'* - (3,4 - dichlorophenyl) - *N*-methoxy-*N*-methyl-, (linuron)
additives, 11
crops, field (cereal), 11, 339, 883, 1232, 1489, field (root), 46, 339, 383, 909, 911, 914, 921, 1254, 1340, field (other), 39, 339, 367, 368, 400, 432, 433, 883, 905, 963, 1203, 1213, horticultural, 63, 432, 433, 883, 961, 962, 963, 1234, 1254, 1480, ornamental, 883, plantation, 1011
granular, 368
irrigation, 285
mixtures, +propham, 921
properties, 1489
residues in soil, 883, 1234
review, 1106
weeds, 11, 46, 285, 367, 368, 383, 400, 883, 911, 1213, 1234, 1692
Urea, *NN* - dimethyl - *N'* - phenyl -, (fenuron)
crops, field (other), 38, 432, 905, 1538, forest, 160, 1294, 1407, fruit, 93, 98, 995, 997, 1275, 1276, 1599, 1611, horticultural, 1570, 1594, ornamental, 982, 985, 1247, 1576, plantation, 1614
granular, 1275, 1611, 1614
leaching, 292
mixtures, +chlorpropham, 38, 905, 982, 985, 995, 1247, 1570, 1576, 1594, +2,4-DES, 93, 985, 995, 997, +PCP, 1576, +propham, 38, +TCA, 1275
pellets, 160, 204, 1028, 1294, 1647, 1706
residues in soil, 885
uncultivated ground, roadsides, 142, 204

Urea (fenuron)—*cont.*
weeds, 432, 1538, 1614, 1706, 1727, woody, 142, 160, 204, 1028, 1294, 1304, 1647, 1653
Urea, 3 - (5 - (3a - 4,5,6,7,7a - hexahydro - 4,7 - methanoindanyl)) - 1,1-dimethyl-, (norea)
crops, field (root), 1812, field (other), 50, 1203, horticultural, 63, 1244, ornamental, 1582
review, 1106
Urea, methoxy methyl, 399
Urea, *N* - (3 - methylphenyl)-*N*-dimethylthio-, 102, 103
Urea, *N*-(3-trifluoromethyl-4-chlorophenyl-*N'N'*-dimethyl-, 1538
Urea, *N*-(3-triflurormethylphenyl)-*N'N'*-dimethyl-, 1538
Ureas, crops, fruit, 1596, photosynthesis, 1384
Ureas, cycloaliphatic, 273
Ureas, phenyl, 1769

Valeric acid, phenoxy, 1782
Venezuela, recommendations, 888

Water pollution by herbicides, 1852
Water quality and herbicides, 589, 1676
Weed associations,
East Germany, 1739
Italy, 1740
Yugoslavia, 217, 1743, 1745
Weed seeds,
combine harvesting and distribution, 618
cropping, effect on, 1070, 1354
cultivations, effect on, 1071
description, Iowa, 1736
Weed seeds—*cont.*
germination, 218, 546, 547, 879, 1013, 1052, 1067, 1355, 1356, 1357, 1358, 1364, 1493, 1759, 1805
identification, 556
in irrigation water, 1902
legislation, 61, 1738
production in weed associations, 1745
riddling, 190
sampling for, 1478
viability, 618, 802, 1363
(see also species index)
Weeders, see Control, cultural
Weed Society of America, objectives and programme, 1469
Weeds
aquatic, control, biological, 176, 177, 757, 1674, control, chemical, 167, 508, 512, 514, 1312, 1313, 1660, 1661, 1662, 1663, cultural and management, 168, 759, 1679, illustrations and notes, 166, 1732
legislation, 201, 320
parasitic, 235, 236, 237, 238, 239, 240, 241, 242, 243, 264, 815, 1377, 1761, 1762, 1763, 1764
poisonous, 540, 541, 771, 798, 799, 1348, 1349, 1350, 1351, 1352, 1707, 1718, 1719, 1720, 1721, 1722, 1723, 1724, 1725, 1726, 1727
woody, control, 1302, chemical, 137, 138, 142, 149, 151, 153, 163, 164, 165, 501, 502, 503, 504, 745, 746, 748, 749, 753, 754, 755, 791, 954, 1020, 1022, 1027, 1296, 1303, 1307, 1310, 1638, 1639, 1640, 1641, 1642, 1643, 1644, 1645, 1646, 1647, 1648, 1650,
Weeds—*cont.*
1651, 1652, 1654, 1655, cultural, 155, 157, 1187, 1305, 1308, 1656, economics, 144, 1635, 1636, 1637, 1641, 1642, fire, 1187, 1634
water in soil, effect removal on, 1023, 1024
(see also species index)
West Germany
recommendations, weed control, 867
review of weed control research and practice, 611
additions to list of approved plant protection products (1962), 875
list of Plant Protection Products (1963), 1161
comments on official Plant Protection Products List (1963), 1254
Wetters, see herbicides, additives
Wildlife
effect of herbicides on, 550, 865
use of herbicides to improve habitat, 1633, 1653
precautions in use of herbicides, 1848
(see also Herbicides, toxicity)
Woody weeds, see Weeds, woody

Xanthogen disulphide, 920
Xanthogen diethyl disulphide, 63, 972, 1480
Xanthogen dimethyl disulphide, 80, 109, 395, 921

Yugoslavia
weed associations, 1743
distribution, *Cephalaria transilvanica*, 1744

SPECIES INDEX

Abies spp. (firs), 500, 594, 741, 1233, 1304
Abies alba (crop), 80
Abies balsamea (balsam fir), 1293
Abies concolor (crop), 1300
Abies magnifica (California red fir), 239, 1300
Abutilon theophrasti
control, chemical,
ametryne, 644, 368
atraton, 368
atrazine, 358, 359, 644
benzoic acid, 2-methoxy-3,5,6-trichloro-, 644
CDAA, 368
CDAA + trichlorobenzyl chloride, 358
chloramben, 368, 369
chlorpropham, 368
2,4-DEP, 644
ipaton, 368
linuron, 368, 644
monuron, 1103
PCP, 368
prometryne, 368
propazine, 358
simazine, 644
2,3,6-TBA, 644
trifluralin, 1111
Acacia spp. (wattle), 1624, 1760
Acacia georginae, 799
Acanthopanax spp. (crop), 80
Acer spp. (maple), 500, 724, 1876
Acer spp.
control, chemical
amitrole, 503
borate/TBA, 1646
2,4-D, 503, 504, 1642
2,4,5-T, 129, 503, 504, 1641, 1642
2,3,6-TBA, 503
Acer campestre (hedge maple), 80
Acer macrophyllum, 162, 1407
Acer negundo (box elder), 136, 141, 1015, 1273
Acer palmatum (Japanese maple), 80
Acer platanoides (Norway maple), 497
Acer rubrum, 204, 504, 1639, 1645, 1651
Achetaria guianensis, 102
Achyranthes aspera, 1742
Acidanthera spp. (crop), 1556
Acorus calamus, 418, 1659
Adenostoma fasciculatum, 215, 954, 1026, 1308
Aegopodium podagraria, 619, 1007
Aeschynomene virginica, 35
Agave spp. (sisal), 106, 107
Ageratum spp. (crop), 76
Ageratum sp., 789, 1616
Agropyron cristatum (crested wheatgrass), 807, 1178, 1220
Agropyron cristatum, 1225
Agropyron intermedium (crop), 1223, 1330
Agropyron intermedium, 807
Agropyron repens
competition, 212, 618, 1358, 1729, 1730
Agropyron repens—cont.
control,
recommendations, 188, 1260, 1483
chemical,
amitrole, 197, 364, 432, 444, 709, 764, 834, 1318, 1319
amitrole-T, 197, 352, 458, 474, 518, 523, 764, 767, 964, 1261, 1549
atrazine, 96, 125, 178, 348, 352, 432, 455, 458, 474, 475, 518, 519, 619, 709, 729, 764, 767, 964, 1233, 1261, 1293, 1323, 1549, 1680
borates, 1038
bromacil, 1823
calcium cyanamide, 348, 1323
carbamate, *t*-butyl di-*n*-propylthiol-, 571
CDAA, 45
CDAA-T, 898
CDEC, 45
chloramben, 45, 63, 709
chlorpropham, 45, 364
2,4-D, 350, 518, 1428
dalapon, 7, 45, 94, 197, 321, 324, 348, 350, 352, 364, 444, 458, 463, 475, 497, 518, 519, 523, 603, 764, 826, 827, 1178, 1261, 1293, 1319, 1428, 1548, 1680
di-allate, 663
dichlobenil, 1007
dichlorobutyric acid, 323, 497, 523
dinoseb, 45, 364
diquat, 96
diuron, 96
DMPA, 45
EPTC, 45, 519, 663
erbon, 1038
fenac, 351, 352, 518, 765, 1038
isocil, 536
MCPA, 17
metham, 324
monuron, 432, 1038, 1178
OMU+BiPC, 1323
paraquat, 964
PEBC, 663
phthalate, dimethyl tetrachlorotere-, 709
prometryne, 619
propham, 364, 663
simazine, 7, 96, 122, 125, 178, 348, 352, 453, 455, 458, 475, 518, 519, 619, 709, 729, 764, 767, 1261, 1323
SMA, 45
sodium chlorate, 1178, 1319
TCA, 45, 364, 766, 934, 1038, 1318, 1319, 1548
tri-allate, 663
trifluralin, 1111
cultural, disking, 764
plastic mulching, 92
rototilling, 455, 519
Finland, weed of cereals, 1072
phytotoxic extract, 618, 807, 1370
Agropyron repens, control—*cont.*
rhizomes, effect of herbicides and growth regulators, 827, 834, 1428, 1681, 1778
translocation of herbicides, 826
Agrostis grandiflora (crop), 1330
Agrostemma githago, 543
Agrostis spp. (bent grass)
pest, 1546
weed control, chemical
Amchem XF 832, 461
amitrole, 1546
arsenicals, 460, 461, 462, 714, 715, 717
barban, 1546
chlorazine, 1546
chlordane, 460, 714, 715, 717, 723
2,4-D, 461, 885
dalapon, 1546
2,4-DB, 885
diphenatrile, 717
DMPA, 460, 461, 714, 715, 717
fenoprop, 461, 715, 885
MCPA, 885
MH, 1546
PEBC, 1546
phthalate, dimethyl 2,3,5,6-tetrachlorotere-, 460, 461, 714, 715, 717, 722
propanil, 1546
2,4,5-T, 885
amitrole, 741, 1320, 1346
atrazine, 1346
dalapon, 733, 1320
dichlobenil, 1007
diphenamid, 438
fenuron-TCA, 167
MCPA, 1216
monuron, 1346
paraquat, 1216
simazine, 741
control, cultural, 1320
phytotoxic extract, 618
Agrostis alba (crop), 720, 1547
Agrostis alba, 507, 1659
Agrostis canina, 1227
Agrostis gigantea, 324, 618, 1007, 1358
Agrostis stolonifera
control, chemical
amitrole, 523
amitrole-T, 432, 474
atrazine, 125, 474, 1233
dalapon, 125, 432, 497, 523
dichlorobutyric acid, 432, 497, 523
diquat, 991
diuron, 474
isocil, 536
paraquat, 991
propazine, 1233
simazine, 122, 125, 474, 1233
TCA, 432
Agrostis tenuis, 125, 930, 941, 1226
Agrostis tenuis (New Zealand browntop), 720, 986, 1227
Aira caespitosa, 499
Aira flexuosa, 499
Alcornea subglandulosa, 103, 737

Algae
control
biological, 176
chemical,
acrolein, 510
amitrole-T, 619
ammonium chloride, di-iso-butylphenoxy ethoxy ethyl dimethyl benzyl, 1164
calcium cyanamide, 760
copper sulphate, 1317
dichlone, 759
endothal, 511, 515
paraquat, 1289
Alisma gramineum, 757
Alisma plantago-aquatica, 35, 899, 1034
Allanblackia parviflora, 138
Allium spp. (crop), 1556
Allium ascalonicum (shallots), 1480
Allium cepa (onions)
residues of herbicides in, 1851
weed control,
economics, 1488, 1567
recommendations, 10, 689, 958
chemical,
atraton, 701, 1240
benzonitrile, 3,5-di-iodo-4-hydroxy-, 1818
bis ethyl xanthogen disulphide, 63, 972
calcium cyanamide, 1567
carbamate, *t*-butyl-di-*n*-propylthiol-, 571
CDAA, 63, 702, 703, 973, 1238, 1241
CDAA + trichlorobenzyl chloride, 63, 390, 690, 702, 703, 966, 972, 1238, 1241
CDEC, 1238, 1239
chloramben, 692, 961, 1239
chlorpropham, 63, 69, 303, 432, 444, 690, 701, 702, 956, 957, 966, 967, 972, 973, 1237, 1238, 1239, 1240, 1241, 1481, 1567, 1570
cresylic acids, 1570
dichlobenil, 972
dinoseb, 303, 441
diphenamid, 961, 1240
diquat, 691, 956, 972, 1481, 1570
diuron, 432, 444, 972, 1570
DMPA, 690, 1239
DNOC, 1567
EPTC, 1239
ethyl xanthogen disulphide, 63, 972
fenuron, 1570
ipazine, 1240
linuron, 1254
monolinuron, 432
oil, 303, 1570
OMU+BiPC, 444, 693
paraquat, 691, 1481, 1570
PCP, 956, 1570
PEBC, 1239
phthalate, 2,3,5,6-tetrachlorotere-, 701, 960, 966, 1239, 1240
potassium cyanate, 69, 701, 1481
prometryne, 432, 966, 967, 1240
propazine, 432
Allium cepa (onions), weed control, chemical—*cont.*
simazine, 432, 434, 1237
simetryne, 966, 967
SMA, 966, 1570
sulphonamide, *N*-(*β*-*O*-*O*-di-isopropyl-dithio phosphorylethyl) benzene, 1812
sulphuric acid, 432, 1560, 1570
triazines, methoxypropyl-amino, 434
trietazine, 432
trifluralin, 1111
flaming, 1242
Allium fistulosum (spring onions), 442
Allium lemmonii, 1309
Allium porrum (leek)
weed control, chemical,
chloroxuron, 956, 1254
chlorpropham, 432, 1562, 1570
cresylic acid, 1570
diquat, 1570
diuron, 1562, 1570
fenuron, 1570
monuron, 1571
oil, 1570
OMU+BiPC, 432, 693
PCP, 1570
paraquat, 1570
prometryne, 443
propazine, 432
simazine, 321, 432, 956
SMA, 1570
sulphuric acid, 1570
trietazine, 432
Allium sativum (garlic), 69
Allium vineale
competition, 192
control, chemical, 1483, 1486, 1698
cultural, 192, 193, 1749
Alnus spp. (alders), 475, 500
Alnus spp., 128, 129, 1306, 1646
Alnus rubra, 161, 162, 1304, 1650
Alopecurus spp., 433
Alopecurus geniculatus, 976
Alopecurus myosuroides
calcium ammonium nitrate and simazine, 1496
control, chemical,
ametryne, 340
atrazine, 323, 1497
barban, 340, 627, 634, 635, 892, 1321, 1497
calcium cyanamide, 340, 630, 1496
chloralchloracetamide, 340
chloramben, 327
chlorpropham, 1548
dalapon, 323
di-allate, 340, 416, 886, 887
dichlobenil, 340, 416, 624
dichloroisobutyric acid, 323
dinoseb, 340
DNOC, 340
EPTC, 416
OMU, 1496
OMU+BiPC, 323, 340
prometryne, 416, 907, 1497
simazine, 323, 340, 416, 432, 907, 1321, 1496, 1497
simetryne, 340
TCA, 323, 340
tri-allate, 886, 887
triazine, 2-chloro-4-allylamino-6-isopropylamino-1,3,5-, 340
Alopecurus myosuroides—*cont.*
control, cultural, 879, 1321
seeds, 879, 1358
Alopecurus pratensis (foxtail grass), 428, 1547
Alopecurus pratensis, 1216
Alstonia boonei, 153
Alternanthera philoxeroides
control,
biological, 176, 177
chemical,
benzoic acid, 2-methoxy-3,6-dichloro-, 1025, 1670
benzoics, 1025
2,4-D, 1670
dichlobenil, 1670
diquat, 1675, 1677
disodium methyl arsonate, 1670
fenac, 1670
fenoprop, 1664, 1670
paraquat, 1677
propanil, 35
trichlorophenyl acetonitrile, 1670
Alyssum spp. (crop), 76
Amaranthus spp.
control, chemical
atrazine, 358, 359
benzoic acid, 2-methoxy-3,6-dichloro-, 1210, 1716
carbamate, *n*-propyl-di-*n*-propyl thiol-, 63
CDAA, 39
CDAA-T, 33, 358, 973, 1241
chloramben, 39, 369, 685, 913, 1506
chlorpropham, 973, 1241
2,4-D, 944
2,4-DB, 1201
dimethyl,
dinoseb, 39, 63, 1207
diphenamid, 63, 65, 1210
diuron, 488, 1214
EPTC, 63, 913, 1210, 1522
fenac, 1506
linuron, 39, 46, 883
MCPB, 46
monuron, 488, 1207
naptalam, 1210
norea, 63
oxazolidine dione, 3-(*p*-chlorophenyl)-5-ethyl-2,4-, 885
PCP, 488
PEBC, 63
phthalate, dimethyl 2,3,5,6-tetrachlorotere-, 1210
prometryne, 63, 1210
propanil, 46
propazine, 33, 358
simazine, 488
TCA, 1714
trifluralin, 908, 1210
response to gamma radiation, 1766
Amaranthus albus, 1235
Amaranthus graecizans, 285, 535
Amaranthus hybridus, 884, 966
Amaranthus lividus, 80
Amaranthus retroflexus
competition, 1752
control, chemical
ametryne, 368 644 963
arsenicals, 1213
atraton, 368

Amaranthus retroflexus, control —*cont.*
atrazine, 641, 644, 645, 648, 706, 891, 1233, 1235
barban, 659
calcium cyanamide, 185
benzoic acid, 2-methoxy-3,6-dichloro-, 641, 645, 674, 774, 935, 1235
benzoic acid, 2-methoxy-3,5,6-trichloro-, 644, 674
benzoic acid, methyldichloro-, 644
carbamate, ethyl ethyl-*n*-butylthiol-, 885
carbothiolate, ethyl-1-hexamethyleneimine-, 570
CDAA, 285, 368, 695, 891, 961, 972, 977, 1246
CDAA-T, 977
CDEC, 71, 285, 695, 891, 1233, 1246, 1438
chloralchloracetamide, 1523
chloramben, 285, 367, 368, 961, 963, 977, 1233, 1248
chloropicrin, 185
chlorpropham, 285, 368, 972, 977
2,4-D, 641, 645, 658, 674, 774, 1079
dalapon, 1523
2,4-DB, 674
2,4-DEP, 388, 644, 725, 1233
di-allate, 659
dichlobenil, 285, 972, 977
dicryl, 1213, 1235
diphenamid, 438, 725, 961, 963, 1248
diquat 972
dinoseb 32, 56, 371, 388, 641
diuron, 63, 972
DMPA, 37, 285, 371, 1233, 1235, 1246
endothal, 961, 1523
EPTC, 5, 285, 641, 648, 659, 706, 885, 1206, 1233
ethyl xanthogen disulphide, 972
fenac, 641
ipaton, 368
linuron, 285, 367, 368, 644, 645, 725, 961, 963
MCPA, 658, 906
MCPB, 658, 906
metham, 185
methyl bromide, 185
monuron, 63, 706
naptalam, 1438
OMU+BiPC, 1523
PCP, 368, 1248
PEBC, 648, 704, 725, 885, 977, 1206, 1248, 1523
pentanamide, *N*-(3,4-dichlorophenyl)-2-methyl, 1233
phthalate, dimethyl 2,3,5,6-tetrachlorotere-, 388, 1246, 1248, 1438
prometryne, 368, 963
propanil, 35
propargyl bromide, 185
propazine. 725, 1233
propham, 1523
simazine, 63, 641, 644, 706, 891, 1233
Solan, 977, 1235
swep, 5

Amaranthus retroflexus, control —*cont.*
2,3,6-TBA, 644
triazine, 2,4-bis(3-methoxypropylamino) - 6 - methylthio-1,3,5-, 367, 645
triazine, 2-chloro-4-ethylamino-6 - (3 - methoxypropylamino)-1,3,5-, 961, 963
TCA, 1523
trietazine, 388, 659
Amaranthus spinosus, 535
Amaranthus viridus, 668
Ambrosia spp.
control, chemical,
carbamate, ethyl di-*n*-butylthiol-, 39
CDAA, 39
chloramben, 39
2,4-D, 679
2,4-DB, 679
dinoseb, 32, 39
diquat, 1274
DMPA, 37
endothal, 664
EPTC, 664
linuron, 883
paraquat, 1274
PEBC, 664
simazine, 1274
swep, 39
triazine, 2,4-bis(3-methoxypropylamino) - 6 - methylthio-1,3,5-, 39
trietazine, 39
Ambrosia aperta, 202
Ambrosia artemisiifolia
control, chemical
ametryne, 661
benzoic acid, 2-methoxy-3,6-dichloro, 1716
CDAA, 1246
CDAA-T, 650
CDEC, 1246
chloramben, 615, 650, 661, 913, 1248
chlorinated aliphatic acids, 1186
2,4-D, 1186
dichlobenil, 650
dinoseb, 371, 661
diphenamid, 650, 661, 683, 1248
DMPA, 371, 650, 661, 1246
endothal, 650
EPTC, 913
linuron, 615, 650, 661
neburon, 650
PCP, 650, 1248
PEBC, 704, 1248
phenol, 6-nitro-2,4-dichloro-, 650
phthalate, dimethyl 2,3,5,6-tetrachlorotere-, 650, 661, 1186, 1246, 1248
potassium cyanate, 1248
propazine, 650
solan, 1248
TCA, 1248
triazine, 2-chloro-4-ethylamino-6 - (3 - methoxypropylamino)-1,3,5-, 661
triazine, 2-chloro-4-isopropylamino - 6 - methylamino-1,3,5-, 650
pollen sampling, 817
Ambrosia psilostachya, 1341

Amelanchier spp., 1639
Ammannia auriculata, 1750
Anabaena spp., 1033
Anacharis spp., 1314
Anagallis arvensis, 41, 543, 924
Anagallis arvensis ssp. *arvensis*, 926
Ananus comosus (pineapple) 488, 571, 1268, 1441, 1764
Anchusa spp. (anchusa), 1580
Andropogon gerardi (big bluestem), 680
Andropogon virginicus, 1274
Anemone spp. (crop), 1247, 1255, 1576
Anethum graveolens (crop), 442, 443
Angelica archangelica (angelica), 404, 1556
Angelica spp., 1551
Aningueria robusta, 138
Anthemis spp., 334
Anthemis arvensis, 341
Anthemis cotula, 56, 328, 341, 624, 1233
Anthoxanthum odoratum, 1216, 1224, 1226
Anthriscus spp., 335, 1551
Anthriscus cerefolium (chervil), 433, 1556
Anthriscus sylvestris, 506
Anthurium (crop), 103
Antirrhinum spp. (crop), 76
Antiaris welwitschii, 153
Apera sp., 55
Apera spica-venti,
control, chemical
atrazine, 1323
calcium cyanamide, 1322, 1323, 1496, 1498
DNOC, 340
oil, 498
OMU, 1496
OMU+BiPC, 340, 1323
paraquat, 498
simazine, 323, 1323, 1496, 1497, 1498
Apios spp., 471
Apium graveolens dulce (celery)
host to *Orobanche*, 235, 1574
weed control,
recommendations, 689, 958
chemical
carbamate, *t*-butyl di-*n*-propylthiol-, 571
CDEC, 694
chloramben, 437
chloroxuron, 1254
dinoseb, 1235
ipazine, 968
linuron, 1254
MCPB, 63
monolinuron, 1254
oil, 68
prometon, 1235
prometryne, 443, 956, 1566
propazine, 432, 968, 1235, 1480
Apium leptophyllum, 799
Apium nodiflorum, 170
Apocynum spp., 279, 1824
Apocynum androsaemifolium, 1823
Aponogeton distachyos, 1030
Apricot, see *Prunus armeniaca*
Apple, see *Malus* spp.
Aquilegia spp. (crop), 1580

Arachis hypogaea (ground nuts)
sap extracts and simazine breakdown, 1793
weed control, chemical, 570, 737, 1202, 1492, 1818
cultural, 13
summary of research, Southern Weed Control Conf., 1895
Arceuthobium spp., 1297, 1298, 1304
Arceuthobium americanum, 240
Arceuthobium campylopodum, 238, 239, 1299, 1300
Arceuthobium vaginatum, 240
Arctium lappa (crop), 404
Arrhenatherum elatius, 229, 1063
Arrhenatherum elatius (oat grass), 1547
Artemisia spp., 1309
Artemisia californica, 954
Artemisia cana, 1309
Artemisia frigida, 1228
Artemisia tridentata,
control, 687
biological, 688, 756
chemical, 1309, 1554, 1643
Artemisia vulgaris, 183, 1426, 1526, 1696
Arthraxon inermis, 182
Arum maculatum, 1025
Aruncus sp. (crop), 77
Asclepias curassavica, 1545
Asparagus officinalis (asparagus)
weed control,
recommendations, 689, 1480
chemical,
amitrole, 432
atrazine, 321, 432, 441, 706
chloropropham, 445
2,4-D, 441
dalapon, 321, 976
2,4-DEP, 63
diphenamid, 976
diuron, 63, 321, 875
EPTC, 706
MCPA, 441
monuron, 63, 303, 321, 432, 441, 445, 964, 705, 976
OMU+BiPC, 441
simazine, 63, 70, 321, 441, 706, 964
cultural, mulching, 441
Asphodelus fistulosus, 1332
Aster spp. (asters), 74, 76, 1580
Aster spp., 279, 1824
Aster ericoides, 1823
Astragalus spp., 687
Asystasia schimperi, 1538
Atkinsonia ligustrina, 236
Atriplex spp., 377, 917
Atriplex patula
competition, 1358
control, chemical, 41, 336, 724, 1631
nitrogen requirements, 547
seeds, 1631
Attalea exigua, 1311
Avena spp., 618, 893, 1364
Avena fatua
botany, 222, 618, 1358, 1364
competition, 805
control,
recommendations, 1480
chemical,
amitrole, 387
Avena fatua, control, chemical—*cont.*
barban, 23, 24, 38, 321, 325, 340, 375, 397, 402, 419, 619, 627, 633, 656, 659, 892, 1042, 1044, 1046, 1499, 1505, 1520
calcium cyanamide, 340
carbamate, *t*-butyl-di-*n*-propylthiol-, 571
carbamate, α-carbo-(2,4-dichlorophenoxyethoxy) ethyl -*N*-phenyl-, 1044
carbamate, ethyl ethyl-*n*-butylthiol-, 885
carbothiolate, ethyl-1-hexamethyleneimine, 1812
chloralchloracetamide, 321, 325, 375, 380
chloramben, 327, 328, 401, 660
2,4-D, 401, 402
dalapon, 387, 401, 402
di-allate, 24, 321, 325, 327, 328, 340, 375, 380, 401, 619, 625, 626, 629, 633, 656, 659, 660, 886, 887, 1043, 1046, 1324, 1359, 1520
dichlobenil, 340, 624, 660
dinoseb, 340
DNOC, 340
endothal, 926
EPTC, 5, 656, 659, 660, 885, 1206
linuron, 883
MCPA, 401, 402, 1044
monolinuron, 387
OMU+BiPC, 340
PCA, 1112
PEBC, 660, 885, 1206
propham, 387, 656, 882
simetryne, 340
swep, 5
TCA, 321, 325, 375, 380, 387, 656, 882, 1520
tri-allate, 380, 621, 625, 629, 633, 660, 886, 1043, 1181
triazine, 2-chloro-4-allylamino-6-isopropylamino-1,3,5-, 340
trietazine, 659, 660
control, cultural,
burning, 768
management, 1047, 1177
distribution,
Belgium, 523, 552
seeds, 220, 221, 523, 618, 879, 1324, 1363, 1364
Avena ludoviciana, 221, 618, 1358
Avena sativa (oats)
competition, 780
conversion to *A. fatua*, Michurinist factors, 222
sap extracts and simazine breakdown, 1793
effect of weed root extracts on, 807
seeds, 223
weed associations, Yugoslavia, 217
weed control, chemical,
acetic acid, 2-methoxy-3,6-dichlorophenyl-, 1108
ametryne, 339
amitrole, 339
amitrole-T, 339
atraton, 1861
atrazine, 1861
Avena sativa (oats), weed control —*cont.*
barban, 339
benzoic acid, 2-methoxy-3,6-dichloro-, 334
calcium cyanamide, 337, 340, 344
carbamate, *t*-butyl di-*n*-propylthiol-, 571
carbothiolate, ethyl-1-hexamethyleneimine, 570
chloralchloracetamide, 339
chloramben, 328, 339, 685
chlorpropham, 339
2,4-D, 18, 1490, 1491
2,4-DB, 1491
2,4-DEP, 339
di-allate, 327, 339, 626, 1359
dichlobenil, 339, 859
dichlorprop, 336
dicryl, 339
dinoseb, 18, 344, 637
diquat, 25, 615
diuron, 339
DNOC, 18, 1490
EPTC, 339, 637, 1452
fenac, 339
fenoprop, 338, 780, 1051
fenuron, 637
ipazine, 1861
linuron, 339
MCPA, 17, 18, 25, 334, 337, 339, 780, 889, 1490, 1491
MCPB, 18, 339, 1491
mecoprop, 18, 25, 323, 331, 338, 780
monolinuron, 339
naptalam, 327, 328, 339
neburon, 637
paraquat, 25
PEBC, 339
prometryne, 339
propanil, 339
simazine, 337, 1861
simetryne, 339
solan, 339
2,3,6-TBA, 25, 337, 780
TCA, 339
tri-allate, 626
triazine, 2-chloro-4-allylamino-6-isopropylamino-1,3,5-, 339
triazines, chloro- and methoxy-, 434
control,
fire, 20
Avena sativa, 190, 523, 552, 885
Avena sterilis, 618, 1358
Avena strigosa, 523, 552
Avocados, see *Persea gratissima*
Axonopus affinis, 1550
Axonopus compressus (carpet grass), 1328, 1626
Axonopus compressus, 114, 181, 1280, 1333, 1868
Azalea spp. (crop), 82, 458, 498
Azolla spp., 1332
Azolla filiculoides, 1030
Azolla rubra, 1316

Bacopa spp., 35
Bacopa rotundifolia, 1677
Banana, see *Musa sapientum*
Barbarea vulgaris, 58, 648, 1335, 1491, 1549

Barley, see *Hordeum vulgare*
Bean, broad, see *Vicia faba*
Bean, castor, see *Ricinus communis*
Bean, field, see *Vicia faba*
Bean, French, see *Phaseolus vulgaris*
Bean, kidney, see *Phaseolus vulgaris*
Bean, lima, see *Phaseolus lunatus*
Bean, runner, see *Phaseolus multiflorus*
Bean, snap, see *Phaseolus* spp.
Beet, fodder, see *Beta vulgaris*
Beet, garden or red, see *Beta vulgaris*
Beet, see *Beta* spp.
Bellis perennis, 986
Bent grass, see *Agrostis* spp.
Berberis spp. (crop), 76, 457, 498, 709
Berberis spp. 142
Berberis thunbergii, 497
Bermuda grass, see *Cynodon dactylon*
Beta vulgaris (red beet)
crop spacing, 1231
herbicide screening trials, 8
incorporation of herbicides, 957
weed control,
recommendations, 689
chemical,
carbamate, *t*-butyl di-*n*-propylthiol-, 571
carbamate, ethyl ethyl-*n*-butylthiol-, 435
CDEC, 435, 690, 1232
chloramben, 437, 692
chloroxuron, 1109
chlorpropham, 1109
diphenamid, 438, 961
endothal, 63, 435, 961, 1562
EPTC, 704
ether, 2,4-dichlorophenyl-4-nitrophenyl, 1109
linuron, 1234
PEBC, 63, 435, 704, 1232
propham, 1562
TCA, 1232
Beta vulgaris (fodder beet)
weed control, chemical
ametryne, 339
amitrole, 339
amitrole-T, 339
barban, 339
calcium cyanamide, 383
CDEC, 884
chloralchloracetamide, 339, 380
chloramben, 339, 383, 884
chlorpropham, 339
dalapon, 383
2,4-DEP, 339
di-allate, 339, 380, 886
dichlobenil, 339
dicryl, 339
dimexan, 383
dinoseb, 383
diuron, 339
endothal, 383
EPTC, 339, 884
fenac, 339
linuron, 339
MCPA, 339
MCPB, 339
monolinuron, 339
naptalam, 339
OMU+BiPC, 383
PCA, 1112
PEBC, 339, 884, 925
prometryne, 339
propanil, 339
Beta vulgaris (fodder beet), weed control—*cont.*
propazine, 884
propham, 383
simazine, 383
simetryne, 339
solan, 339
TCA, 339, 380
tri-allate, 380
triazine, 2-chloro-4-allylamino-6 - isopropylamino - 1,3,5,-, 339
trietazine, 884
Beta vulgaris cicla (chard, Swiss), 65
Beta vulgaris vulgaris (sugar beet)
desiccation, 1826
damage from herbicide drift, 666
germination and gibberellic acid, 44
seed, cleaning, 190
spraying date, 382
weed control,
economics, 1488
mechanical *v.* chemical thinning, 919
chemical,
ametryne, 339
amitrole, 339
amitrole-T, 339
barban, 321, 325, 339, 375, 1046
carbamate, *t*-butyl di-*n*-propylthiol-, 571
carbamate, ethyl ethyl-*n*-butylthiol-, 885
CDAA, 664
CDAA + trichlorobenzyl chloride, 1205
CDEC, 45, 664, 1205
chloralchloracetamide, 321, 325, 339, 375, 380, 1523
chlorpropham, 322, 339, 665, 920
2,4-D, 3, 666
dalapon, 42, 45, 664, 1523
di-allate, 43, 321, 325, 339, 375, 380, 621, 663, 665, 886, 887, 1046
dichlobenil, 859
diethyl xanthogen disulphide, 1480
dimexan, 321, 325, 921, 1480, 1481
dinoseb, 325
diquat, 321, 322, 325, 921
diuron, 322, 339, 920, 921
DMPA, 381
DNOC, 3
endothal, 41, 42, 43, 45, 93, 321, 322, 325, 374, 381, 664, 918, 920, 921, 924, 925, 926, 960, 1205, 1480, 1481, 1523
EPTC, 45, 339, 381, 663, 664, 665, 885, 1046, 1206
fenac, 339
linuron, 339, 921
MCPA, 339
MCPB, 339
monolinuron, 339
OMU, 922, 923, 924
OMU+BiPC, 43, 321, 322, 323 373, 374, 375, 376, 377, 918, 920, 921, 924, 1480, 1481, 1523
paraquat, 921
Beta vulgaris vulgaris (sugar beet), weed control, chemical—*cont.*
PCA, 43, 375, 376, 377, 378, 379, 662, 835, 921, 922, 923, 924, 1112, 1481
PCP, 3, 43, 321, 2480
PEBC, 42, 339, 381, 663, 664, 885, 925, 1206, 1523
phthalate, dimethyl 2,3,5,6-tetrachlorotere-, 921
prometryne, 339
propanil, 339
propham, 41, 43, 93, 321, 322, 325, 339, 374, 663, 918, 920, 921, 924, 925, 926, 1046, 1480, 1481, 1523
simetryne, 339
sodium chloride, 43, 381
sodium nitrate, 3
swep, 3
TCA, 43, 45, 321, 325, 339, 375, 380, 381, 664, 1523
tri-allate, 380, 621, 663, 887
triazine, 2-chloro-4-allylamino - 6 - isopropylamino-1,3,5-, 339
weeds of, Yugoslavia, 1523
Beta vulgaris, 917, 1525
Betula spp. (birches), 136
Betula spp., 129, 504, 1345, 1646
Betula lenta, 504
Betula lutea, 502, 504
Betula populifolia, 502, 504
Bidens bipinnata, 97
Bidens pilosa, 1538
Blackberry, see *Rubus* spp.
Blighis welwitschii, 153
Blueberry, see *Vaccinium* spp.
Blue grass, see *Poa pratensis*
Borreria spp., 1333
Borreria latifolia, 1626
Borreria verticillata, 102, 103
Bougainvillea spp. (crop), 82
Boysenberry, see *Rubus ursinus*
Brachiaria spp., 35, 479
Brachiaria mutica, 1661
Brachiaria platyphylla, 1830
Brachystegia spicaeformis, 1187
Brasenia spp., 167, 762
Brasenia schreberi, 510
Brassica spp. (brassicas, general), 689, 958, 1109, 1812, 1818
Brassica spp., 32, 388
Brassica alba, 327
Brassica caulorapa (kohlrabi), 65
Brassica juncea (crop), 677
Brassica juncea var. *crispifolia*, 885
Brassica napobrassica (rutabaga), 65, 1491
Brassica napus (swedes),
weed control, chemical
ametryne, 931, 967
amitrole, 881
atrazine, 323
dalapon, 881
diquat, 928, 929, 930
endothal, 927
paraquat, 881, 928, 929, 930
propham, 927
simazine, 323
simetryne, 931, 967
triazine, 2-chloro-4-allylamino-6 - isopropylamino - 1,3,5-, 967

Brassica napus (swedes), weed control —*cont.*
triazine, 2-chloro-4-isopropylamino - 6 - (3 - methoxypropylamino)-1,3,5-, 967
triazine, 2-methylthio-4-methylamino - 6 - isopropylamino-1,3,5-, 931, 933
Brassica napus (rape, colza)
competition, 1729
weed control, chemical
barban, 397, 1046
CDAA, 45
CDEC, 45
chloramben, 45
chlorpropham, 45
dalapon, 45, 323, 417, 769
di-allate, 887
dichloroisobutyric acid, 323
dinoseb, 45
diphenamid, 915
DMPA, 45
endothal, 927
EPTC, 45
paraquat, 417
propham, 927
SMA, 45
TCA, 45, 323, 934
tri-allate, 887
Brassica oleracea botrytis (cauliflower)
weed control, chemical
ametryne, 965
carbamate, *t*-butyl di-*n*-propylthiol-, 571
CDAA, 1246
CDEC, 1246
chloramben, 692
chlorpropham, 1247
diphenamid, 1110
DMPA, 1246
phthalate, dimethyl 2,3,5,6-tetrachlorotere-, 1246
prometon, 965
propazine, 965
simazine, 965
Brassica oleracea (cabbage)
deformities and growth-regulator herbicides, 1875
host to parasite, 235
weed control, chemical
acetic acid, 2-methoxy-3,6-dichlorophenyl, 1108
benzoic acid, 2-methoxy-3,6-dichloro-, 1235
benzoic acid, 2-methoxy-3,5,6-trichloro-, 1235
benzonitrile, 3,5-di-iodo-4-hydroxy-, 1818
carbamate, *t*-butyl di-*n*-propylthiol-, 971
carbamate, ethyl di-*n*-butylthiol-, 971
CDAA, 695, 961, 1246
CDEC, 695, 1246, 1560, 1562
chloramben, 436, 692, 961, 971
desmetryne, 1262
dichlobenil, 859, 971
dinoseb, 1235
diphenamid, 961, 971, 1110, 1246
dipropalin, 1246
DMPA, 971, 1235, 1246
DNOC, 1237
endothal, 927, 1262
Brassica oleracea (cabbage), weed control—*cont.*
ether, 2,4-dichlorophenyl-4-nitrophenyl, 1562
MCPA, 1262
PCA, 835
PEBC, 971
phthalate, dimethyl 2,3,5,6-tetrachlorotere-, 960, 971, 1246
propham, 927, 1262
simazine, 1237
SMA, 1569
solan, 695
trifluralin, 960
Brassica oleracea acephala (kale)
competition, 1068, 1358
weed control, chemical
ametryne, 884, 931, 932, 967
amitrole, 881, 930
amitrole-T, 942
benzonitrile, 3,5-di-iodo-4-hydroxy, 1818
carbamate, ethyl di-*n*-butylthiol-, 1236
CDAA, 1236
CDEC, 1236
chlorazine, 45
chlorpropham, 396, 1236
dalapon, 45, 881, 930
diphenamid, 1236
diphenatrile, 1236
DMPA, 45, 1236
endothal, 927
EPTC, 45, 1236
paraquat, 881, 930
PEBC, 45, 1236
phthalate, dimethyl 2,3,5,6-tetrachlorotere-, 1236
propham, 927
simazine, 323
simetryne, 931, 932, 967
SMA, 191, 396, 884
triazine, 2-chloro-4-allylamino-6-isopropylamino-1,3,5-, 967
triazine, 2-chloro-4-isopropylamino - 6 - (3 - methoxypropylamino)-1,3,5-, 967
triazine, 2-methylthio-4-methylamino - 6 - isopropylamino-1,3,5-, 931, 932
trietazine, 396
trifluralin, 1236
Brassica oleracea fruticosa, (collards), 570, 571, 927, 931, 1236
Brassica oleracea fruticosa (chou moeliier), 1285, 1530
Brassica oleracea var. *fimbriata* (kale), 65
Brassica oleracea gemmifera (Brussels sprouts), 93, 571, 927, 964, 1109
Brassica oleracea italica (broccoli)
weed control, chemical
carbamate, *t*-butyl di-*n*-propylthiol-, 571
carbothiolate, ethyl-1-hexamethyleneimine, 1812
CDAA, 695, 1246
CDEC, 67, 695, 1246
chloramben, 436
di-allate, 447
diphenamid, 65, 1110, 1246
dipropalin, 1246
DMPA, 1246
endothal, 927
Brassica oleracea italica (broccoli), weed control—*cont.*
phthalate, dimethyl 2,3,5,6-tetrachlorotere-, 1246
propham, 927
solan, 695
trietazine, 447
Brassica pekinensis (Chinese cabbage), 570, 571
Brassica rapa (turnip)
weed control, chemical, 689, 694
ametryne, 884, 967
amitrole, 881, 930
benzonitrile, 3,5-di-iodo-4-hydroxy-, 1818
carbamate, ethyl-di-*n*-butylthiol-, 1236
carbothiolate, ethyl-1-hexamethyleneimine, 570
CDAA, 1236
CDEC, 1236
chlorazine, 45
chlorpropham, 1236
dalapon, 45, 881, 930
diphenamid, 65, 438, 1236
diphenatrile, 1236
DMPA, 45, 1236
endothal, 927, 1235
EPTC, 45, 1236
paraquat, 881, 930
PEBC, 45, 1236
phthalate, dimethyl-2,3,5,6-tetrachlorotere-, 1236
propham, 927
simetryne, 967
triazine 2-chloro-4-allylamino-6-isopropylamino-1,3,5-, 967
triazine, 2-chloro-4-isopropylamino - 6 - (3 - methoxypropylamino)-1,3,5-, 967
triazine, 2-methylthio-4-methylamino - 6 - isopropylamino-1,3,5-, 933
trifluralin, 1236
Brassica rapa, 81, 388, 1525
Brassica rapa, ssp. *rapa*, 327
Brassica tournefortii, 1197
Broccoli, see *Brassica oleracea* var. *italica*
Brodiaea sp. (crop), 1556
Brodiaea sp., 954
Brome grass, see *Bromus* spp.
Bromus spp. (brome grass), 1220
Bromus spp., 115
Bromus inermis (crop),
weed control, chemical
barban, 419
2,4-D, 1178, 1547
MCPA, 527
mecoprop, 527
propham, 1223
simazine, 55
2,4,5-T, 1547
2,3,6-TBA, 527
Bromus inermis, 807, 1221, 1823
Bromus mollis (soft brome), 1703
Bromus mollis, 1224
Bromus racemosus, 1222
Bromus secalinus, 65, 543
Bromus sterilis, 100
Bromus tectorum,
control, 687
chemical, 55, 1223, 1225, 1330, 1483
cultural, 1177

Brunnichia cirrhosa, 202
Brussels sprouts, see *Brassica oleracea* var. *gemmifera*
Buckwheat, see *Fagopyrum esculentum*
Buddleia (crop), 80, 1272
Bulboschoenus sp., 1515
Bulboschoenus maritimus, 1515
Bulbostylis barbatus, 1262
Bulbostylis capillaris, 1582
Bumelia sp., 1634
Bunias orientalis, 169
Buxus spp. (crop), 1582

Cabbage, see *Brassica oleracea*
Cabomba caroliniana, 176, 1032
Cacao, see *Theobroma cacao*
Cajanus cajan (dhal), 14, 737
Cajanus indicus (crop), 101
Calamagrostis epigeios, 116, 499
Calamagrostis lanceolata, 116
Calandrinia spp., 1725
Calepina irregularis, 1342
Callicarpa spp. (crop), 80
Callicarpa dichotoma, 1638
Callitriche spp., 507
Callitriche stagnalis, 1030
Calluna spp., 115
Calluna vulgaris, 214, 410
Calystegia sepium, 453, 1054
Camassia spp. (crop), 1556
Camelina sativa, 783
Camellia sp. (crop), 82
Camellia sinensis (tea)
weed control, 106, 1620
chemical, 489, 490, 1621, 1622
Campanula sp. (crop), 1580
Campsis radicans, 202, 1646, 1715, 1716
Cannabis sativa (hemp), 235
Cantaloupes, see *Cucumis melo*
Caperonia castanaefolia, 35
Capsella bursa-pastoris
nitrogen requirements, 547
weed control, chemical
ametryne, 670
calcium cyanamide, 340
CDAA, 962
CDEC, 657
chloramben, 670, 698, 699, 956, 962
chloroxuron, 459, 956, 1109
chlorpropham, 432, 699, 956, 995, 1562
2,4-DB, 60
dichlobenil, 657
dicryl, 699, 969, 970
dinoseb, 657, 670
diphenamid, 962
diquat, 981
endothal, 41, 325, 925, 962
ether, 2,4-dichlorophenyl-4-nitrophenyl, 1109
ipazine, 670
linuron, 459, 698, 962
monolinuron, 459, 698
oil, 698, 1567
OMU+BiPC, 377, 698
paraquat, 981
PCA, 377, 924
PEBC, 925
pentanamide, *N*-(3,4-dichlorophenyl)-2-methyl, 699
Capsella bursa-pastoris, weed control—*cont.*
phthalate, dimethyl 2,3,5,6-tetrachlorotere-, 433
prometryne, 432, 443, 657, 670, 698, 956, 1568
propazine, 699, 970, 1567
propham, 41, 925
simazine, 80, 995
solan, 657, 670, 956, 969, 970
triazine, 2-chloro-4-ethylamino-6-(3-methoxypropylamino)-1,3,5-, 962
trietazine, 657, 670
Capsicum spp. (peppers)
weed control,
recommendations, 689
chemical,
atrazine, 101
carbamate, *t*-butyl di-*n*-propylthiol-, 571
carbothiolate, ethyl-1-hexamethyleneimine, 570
CDEC, 71, 72
chloramben, 1248
diphenamid, 65, 72, 438, 1248
diuron, 101
PCP, 1248
PEBC, 72, 1248
phthalate, dimethyl 2,3,5,6-tetrachlorotere-, 72, 101, 1248
potassium cyanate, 1248
simetryne, 434
simazine, 72
solan, 1248
TCA, 1248
triazines, 3-methoxypropylamino, 434
Caragana spp. (crop), 80, 1015, 1017, 1273
Carapa procera, 138
Caraway, see *Carum carvi*
Cardamine sp., 498
Cardamine hirsuta, 992
Cardaria draba, 231, 1054
Carduus spp., 453, 1237, 1282
Carduus crispus, 426, 1700
Carduus nutans, 87, 1052, 1224, 1380
Carduus pycnocephalus, 187
Carex spp.
weed control, chemical
acrolein, 1314
amitrole, 1659
2,4-D, 1314, 1659
dalapon, 538, 1227, 1314, 1659, 1665
2,2-dichlorobutyric acid, 1659
fenoprop, 1314
simazine, 1659
TCA, 509, 538, 1659
Carex elata, 506
Carex riparia, 1665
Carpet grass, see *Axonopus compressus*
Carpinus nero, 1306
Carrot, see *Daucus carota*
Carthamus tinctorius (safflower), 5, 885
Carum carvi (caraway), 441, 1481
Carum carvi, 1330
Carya sp. (hickory), 160
Carya spp.
control, chemical
amitrole, 503
Carya spp., control—*cont.*
borate/TBA, 1646
2,4-D, 503, 504, 1639, 1642
fenuron, 747
2,4,5-T, 503, 504, 750, 1020, 1639, 1641, 1642, 1644
2,3,6-TBA, 503
Carya aquatica, 157
Carya illinoensis (pecan nuts), 1274
Carya ovata, 152
Carya tomentosa, 154
Cassia sophora (crop), 490
Cassia tora, 1213
Cassytha melantha, 200
Castanea spp. (crop), 498
Castanea sativa, 1305
Castilleia spp., 237
Ceanothus spp., 1646
Ceanothus cuneatus, 954
Ceanothus megacarpus, 215
Celery, see *Apium graveolens dulce*
Celtis spp., 1646
Celtis occidentalis, 204
Cenchrus spp. (crop), 213
Cenchrus spp., 97, 1192, 1207
Cenchrus echinatus, 1186
Cenchrus longispinus, 713
Cenchrus pauciflorus, 1111, 1327
Centaurea cyanus, 432, 433, 1323, 1353
Centaurea diffusa, 1229
Centaurea maculosa, 1549
Centaurea repens, 770
Centaurea solstitialis, 1720
Centrosema pubescens, 295
Cephalanthus sp., 1646
Cephalaria transsilvanica, 1744
Cerastium spp., 995
Cerastium glomeratum, 1224
Cerastium holosteoides, 87, 185, 474
Ceratophyllum spp.
weed control, chemical
2,4-D, 1033, 1035
diquat, 1033
endothal, 167, 173, 511, 1033, 1036
fenoprop, 1033
Ceratophyllum demersum
control, biological, 176, 177
chemical,
acrolein, 172, 1664
2,4-D, 172, 510
diquat, 172, 1664, 1675, 1677
endothal, 172, 173, 1032, 1664
fenoprop, 173, 510, 1666
paraquat, 1664, 1677
cultural, plastic mulch, 1679
Cestrum spp., 1719
Cestrum parqui, 799
Chaenomeles japonica (crop), 80
Chamaecyparis spp. (crop), 76, 80, 115, 1273, 1581
Chamaepeuce afra, 945
Chara spp.
control, chemical
acrolein, 169
2,4-D, 175, 762
diquat, 1033, 1677
endothal, 167, 173, 1036
fenoprop, 173, 175, 1666
fenuron-TCA, 167
MCPA, 175
paraquat, 1677
2,4,5-T, 175
Chara vulgaris, 1033, 1679

Chard, Swiss, see *Beta vulgaris cicla*
Chenopodium spp., 97, 376, 917, 1508, 1524
Chenopodium album
competition, 1353, 1358
control, chemical
acetate, 2,4-dinitro-6-(2-propyl)-phenyl, 46
acetic acid, 2-benzothiazolyl, 1116
acetic acid, 2-oxobenzothiazolin-3-yl-, 1116
ametryne, 368, 670, 911, 931, 966
atraton, 368
atrazine, 641, 706, 891, 898, 907, 910, 1233, 1235, 1323
benzoic acid, 2-methoxy-3,6-dichloro-, 7, 333, 641, 1235
benzoic acid, 2-methoxy-3,5,6-trichloro-, 7, 1235
benzonitrile, 3,5-di-iodo-4-hydroxy-, 1818
calcium cyanamide, 340
carbamate, ethyl di-*n*-butylthiol-, 39
carbamate, ethyl ethyl-*n*-butylthiol-, 885
carbamate, *n*-propyl-di-*n*-propylthiol-, 63
carbothiolate, ethyl-1-hexamethyleneimine, 570
CDAA, 39, 285, 368, 891, 977, 1246, 1491
CDAA-T, 63, 898, 972, 973, 977, 1241
CDEC, 285, 657, 891, 964, 975, 1233, 1246, 1491
chloralchloracetamide, 1523
chloramben, 39, 63, 285, 328, 368, 437, 685, 692, 698, 699, 913, 964, 975, 1233, 1248
chlorpropham, 285, 368, 432, 699, 920, 964, 972, 973, 977, 1241, 1567
2,4-D, 7, 81, 641, 658, 669, 679, 947
dalapon, 7, 46, 1523
2,4-DB, 679, 894, 947
2,4-DEP, 388, 725, 1233
2,4-DES, 1576
di-allate, 383
dichlobenil, 285, 657, 972, 975, 977
dichlorprop, 333
dicryl, 699, 969, 970, 975
dinoseb, 32, 39, 63, 322, 340, 371, 388, 441, 641, 657, 670, 911, 947, 975
diphenamid, 63, 65, 285, 438, 725, 1248
diquat, 46, 972
diuron, 383, 920, 972
DMPA, 285, 371, 1233, 1235, 1246
DNOC, 675, 947
endothal, 41, 81, 325, 925, 926, 1235, 1523, 1562
EPTC, 5, 63, 285, 388, 641, 706, 885, 913, 1206, 1233, 1522
ether, 2,4-dichlorophenyl-4-nitrophenyl, 1109
ethyl xanthogen disulphide, 972
fenac, 641
fenoprop, 7
Chenopodium album, control—*cont.*
ipaton, 368
ipazine, 670, 699, 966, 1233
linuron, 46, 285, 368, 698, 725, 833, 914
MCPA, 7, 333, 337, 658, 675, 894, 906, 947, 1526
MCPB, 46, 906, 947, 1521
mecoprop, 7, 894
monolinuron, 698, 914, 967
monuron, 706
naptalam, 328, 975
OMU, 924
OMU+BiPC, 432, 698, 1523
PCA, 378, 662, 924
PCP, 368, 1248
PEBC, 63, 704, 725, 885, 925, 977, 1206, 1248, 1523
pentanamide, *N*-(3,4-dichlorophenyl)-2-methyl, 699, 1233
phthalate, dimethyl 2,3,5,6-tetrachlorotere-, 388, 975, 1246, 1248
potassium cyanate, 1248
prometryne, 63, 368, 443, 657, 670, 698, 898, 1568
propanil, 46
propazine, 328, 699, 725, 966, 970, 1233
propham, 41, 920, 925, 1523, 1562
simazine, 80, 641, 706, 891, 898, 907, 910, 964, 975, 1233, 1323
simetryne, 931, 966
SMA, 93, 894
solan, 46, 63, 657, 670, 969, 970, 975, 977, 1247, 1248
swep, 5, 39, 46, 63
2,3,6-TBA, 337, 894
TCA, 911, 1248, 1523
triazine, 2-methylthio-4-methylamino - 6 - isopropylamino-1,3,5-, 933
triazine, 2,4-bis(3-methoxypropylamino) - 6 - methylthio-1,3,5-, 39
triazines, chloro-, 7
trietazine, 39, 46, 388, 657, 670, 910
Finland, weed of cereals, 1072
grain crop for prehistoric man, 811
nitrogen requirements, 547
seed, removal from beet seed, 190
seeds, 802, 1357
Sweden, distribution, 1353
taxonomy, 1365
Chenopodium berlandieri, 285
Chenopodium murale, 1206
Chenopodium polyspermum, 547
Chervil, see *Anthriscus cerefolium*
Chicory, see *Cichorium intybus*
Chinese cabbage, see *Brassica pekinensis*
Chionachne hubbardiana, 1661
Chionodoxa spp. (crop), 1556
Chloragalum pomeridianum, 954
Chloris gayana, 54
Chloris pycnothrix, 535
Chondrilla juncea, 21, 787
Chou moellier, see *Brassica oleracea* var. *fruticosa*
Chrysanthemum spp. (chrysanthemum)
control,
recommendations, 1556
Chrysanthemum spp. (chrysanthemum), control—*cont.*
chemical,
CDEC, 74, 76
chloramben, 1577
chloroxuron, 1577
chlorpropham, 74, 1255, 1576
2,4-DES, 1576
dicryl, 76
diphenatrile, 713
diquat, 76
EPTC, 76
phthalate, dimethyl 2,3,5,6-tetrachlorotere-, 74, 76
simazine, 76, 1576, 1577, 1580
Chrysanthemum spp., 1824
Chrysanthemum coccineum (crop), 938
Chrysanthemum leucanthemum, 58, 423, 497, 686, 1549
Chrysanthemum segetum
control, chemical
ametryne, 329, 330
atrazine, 898
benzoic acid, 2-methoxy-3,6-dichloro-, 329, 334
benzonitrile, 3,5-di-iodo-4-hydroxy-, 1818
chloramben, 328, 329
dichlobenil, 624
dichlorprop, 329
dicryl, 330
dinoseb, 322
fenoprop, 329
linuron, 914
MCPA, 322, 334
mecoprop, 329
monolinuron, 914
PCA, 328
prometryne, 329, 330
propazine, 328
Chrysopogon aciculatus, 1280
Chrysothamnus viscidiflorus, 1643
Cichorium spp., 1050
Cichorium endiva (endive), 437, 570, 571
Cichorium intybus (chicory), 432, 437, 523
Cichorium intybus, 423, 686, 1823
Cicuta sp., 188
Cirsium spp., 41, 189, 1551
Cirsium arvense
biology, 1751
competition, 1177, 1353
control,
recommendations, 1483
chemical
ametryne, 931
amitrole, 197, 770, 776, 1053, 1261, 1329
amitrole-T, 197, 776, 964
atrazine, 497, 1323
benzoic acid, 2-methoxy-3,6-dichloro-, 770, 1053
benzoic acid, 2-methoxy-3,5,6-trichloro-, 1053
benzoic acid, methyl dichloro-, 776
calcium cyanamide, 1323
chlorinated aliphatic acids, 497
2,4-D, 770, 1178, 1329, 1407, 1486
2,4-DB, 197, 1053
dichlobenil, 724, 1007

Cirsium arvense, control, chemical —*cont.*
dichlorprop, 336
diuron, 1261
DMPA, 37
fenac, 770
fenoprop, 686
fenuron-TCA, 197
MCPA, 906, 1053, 1178
MCPB, 197, 906, 1053, 1521
mecoprop, 197, 1053
OMU+BiPC, 377, 1323
PCA, 377, 378
simazine, 770, 1323
simetryne, 931
2,3,6-TBA, 770
triazine, 2-methylthio-4-methylamino - 6 - isopropylamino-1,3,5-, 931
description, 945
distribution, Sweden, 1353
Finland, weed of cereals, 1072
seeds, 802, 1224, 1359, 1380
toxicity, effect herbicides on, 1718
Cirsium horridulum, 186
Cirsium vulgare, 423, 1224, 1380
Citrullus vulgaris (water melon), 571, 689, 1560
Citrus spp. (citrus; general)
weed control, chemical, 1608
ametryne, 102, 103
amitrole, 102
arsenicals, 98
atraton, 102, 103
atrazine, 98, 102, 103, 1276
benzene hexachloride, 98
borate, 98
calcium cyanamide, 732
2,4-D, 479
dalapon, 102, 103, 479, 1611
dazomet, 1275
diquat, 102
diuron, 97, 98, 102, 103, 479, 737, 1276, 1611
EPTC, 98
erbon, 98
fenac, 98
fenuron, 98, 1275, 1276, 1611
isocil, 1276
maleic hydrazide, 99
methyl bromide, 1275, 1611
monuron, 98
monuron-TCA, 98
neburon, 102
oil, 102
paraquat, 102, 479, 1289
PCP, 102
prometon, 103
prometryne, 102, 103
propanol, 2,3,6-trichlorobenzyloxy-, 1275
simazine, 97, 98, 102, 103
sodium chlorate, 98
2,4,5-T, 479
TCA, 102, 103, 479, 1275
cultural, 1611
cutting, 1291
weeds in Catania, Italy, 1741
Citrus aurantifolia (limes), 102
Citrus limon (lemon), 1277, 1786
Citrus paradisi (grapefruit), 102, 737
Citrus reticulata (tangerine), 1277
Citrus sinensis (oranges), 102, 1610
Cladophora spp., 1314
Clematis forsterii, 1025
Clerodendrum infortunatum, 164
Clethra sp. (crop), 709
Clitoria ternatea, 1661
Clover, bush, see *Lespedeza* spp.
Cnidoscolus stimulosus, 1334
Cocksfoot grass, see *Dactylis glomerata*
Coconut, see *Cocos nucifera*
Cocos nucifera (coconut), 106, 1012
Coffea arabica (coffee)
weed control, chemical, 106
amitrole, 109, 110, 1011
amitrole-T, 1619
atraton, 1619
atrazine, 109, 110, 1011
carbamate, ethyl ethyl-*n*-butylthiol-, 1619
carbamate, *n*-propyl-di-*n*-propylthiol-, 1619
chloramben, 109
chlorpropham, 109
2,4-D, 110
dalapon, 109, 110, 492, 1623
dimexan, 109
diuron, 110, 1011
EPTC, 109, 110, 1619
fenac, 109, 110, 1011
linuron, 1011
MH, 109
monuron, 109, 110, 1011
neburon, 110
OMU+BiPC, 109, 110
paraquat, 1011, 1289, 1619
PCP, 1619
prometon, 109, 110
prometryne, 1011
propanil, 1011
simazine, 109, 110, 1011
2,3,6-TBA, 109
weed control, cultural, 1149, 1623
cutting, 1291
tillage, 1290
Coffee, see *Coffea arabica*
Collards, see *Brassica oleracea* var. *fruticosa* or var. *napo-brassica*
Colchicum spp. (crop), 1556
Colchicum autumnale, 194
Colocasia esculenta (dasheen), 102, 491
Combretum oblongum, 153
Commelina communis, 675
Conium maculatum, 945
Convallaria spp. (crop), 78, 452, 454, 1556
Convolvulus sp., 95, 1111
Convolvulus arvensis
biology, shoots, 1359, 1367
control, chemical,
amitrole, 477
amitrole-T, 770, 1049
atrazine, 778
benzoic acid, 2-methoxy-3,6-dichloro, 770, 1025
benzoic acid, polychloro-, 770, 778
borate, 778, 1054
chloramben, 770, 913
2,4-D, 78, 477, 770, 1054, 1486
dazomet, 779
dichlobenil, 1007, 1261
diuron, 100
EPTC, 913
ethanol, 2,3,6-trichlorobenzyloxy-, 778
ethylene dibromide, 779
Convolvulus arvensis, control—*cont.*
fenac, 770, 778, 964
fenuron, 778
MCPA, 1025
MCPB, 78, 94, 477
monuron, 778
prometon, 778
propanol, 2,3,6-trichlorobenzyloxy-, 778
simazine, 100, 481, 770
SMA, 894
sodium chlorate, 778
2,3,6-TBA, 770, 778, 1025, 1049, 1054
Convolvulus pleuricaulis, 34
Convolvulus sepium, 100
Conyza canadensis, 89, 423, 686
Corchorus capsularis (jute), 677
Cordia macrostachya, 1545
Coreopsis spp. (crop), 1580
Coronopus didymus, 966
Cornus spp. (dogwood), 76, 80, 454
Cornus spp., 750, 1639, 1642, 1646
Coronopus didymus, 799, 965
Conjanthe pachyceras, 138
Corylopsis pauciflora, 80
Corylus spp. (hazel), 454
Corylus avellana, 129, 1306, 1345
Cosmos spp. (crop), 76
Cotinus spp. (crop), 80
Cotoneaster spp. (crop), 80, 459, 497, 498
Cotton, see *Gossypium* spp.
Coula edulis, 138
Crassocephalum crepidioides, 1616
Crataegus spp. (crop), 80, 497
Crataegus spp., 133, 142, 750, 1634
Crataegus crus-galli, 152
Crataegus monogyna, 945
Crepis spp., 1050
Crepis biennis, 1222
Crocus spp. (crocus), 1556
Crotalaria (crop), 570
Crotalaria spectabilis, 1186
Croton sp. (crop), 82
Croton capitatus, 35
Cryptostemma spp., 1050
Cryptostemma calendula, 1197
Cucumber, see *Cucumis sativus*
Cucumis melo (melon), 65, 434, 1234
Cucumis melo cantalupensis (cantaloupes)
weed control,
recommendations, 689
chemical,
carbamate, *t*-butyl di-*n*-propylthiol-, 571
carbothiolate, ethyl-1-hexamethyleneimine, 570
CDEC, 694, 1560
diphenamid, 438
naptalam, 960, 1560
Cucumis sativus (cucumbers)
bioassay for triazines, 1864
weed control,
recommendations, 689
chemical,
atrazine, 101
carbamate, *t*-butyl di-*n*-propylthiol-, 571
carbothiolate, ethyl-1-hexamethyleneimine, 570
CDEC, 975, 1560
chloramben, 960, 963, 975, 1409

Cucumis sativus (cucumbers), weed control, chemical—*cont.*
dichlobenil, 975
dicryl, 975
dinoseb, 975
diphenamid, 65, 963
diuron, 101
linuron, 1234
naptalam, 975, 1560
PCA, 835
phthalate, dimethyl 2,3,5,6-tetrachlorotere-, 101, 975
simazine, 975
solan, 975
Cucurbita spp. (crop), 235
Cucurbita pepo (pumpkins), 57, 964
Cucurbita pepo (squash)
weed control, chemical
ametryne, 963
carbamate, *t*-butyl di-*n*-propylthiol-, 571
carbothiolate, ethyl-1-hexamethyleneimine, 570
chloramben, 960, 963, 1409
dinoseb, 700
diphenamid, 963
DMPA, 700
linuron, 963, 1234
prometryne, 963
triazines, 434
Currant, black, see *Ribes nigrum*
Currant, red, see *Ribes rubrum*
Currants, see *Ribes* spp.
Cuscuta spp., 672, 1761, 1806
Cuscuta breviflora, 1724
Cuscuta campestris, 1761
Cuscuta cupulata, 814
Cuscuta europaea, 1724
Cuscuta gronovii, 1805, 1807
Cuscuta japonica, 1808
Cuscuta pentagona, 233, 1375
Cuscuta reflexa, 1761
Cyamopsis tetragonoloba (guar), 1203
Cydonia oblonga (quince), 474
Cynodon dactylon (Bermuda grass)
weed control, chemical,
arsenicals, 89, 1588, 1589, 1693
atrazine, 89
chlordane, 89, 1589
2,4-D, 89
dalapon, 1328
dichlobenil, 89
dicryl, 1588
diphenatrile, 713, 1589
dipropalin, 89
DMPA, 89, 1589
endothal, 89
fenoprop, 89
neburon, 89
phthalate, dimethyl 2,3,5,6-tetrachlorotere-, 89, 1589
polychlorodicyclopentadiene isomers, 89
simazine, 89, 1589
TCA, 1615
trifluralin, 89
Cynodon dactylon
control,
summary of research, Southern Weed Conf., 1895
chemical,
amitrole, 1278, 1537
arsenicals, 1590
bromacil, 1823
chlorate/borate, 206
Cynodon dactylon, control, chemical—*cont.*
dalapon, 54, 206, 1278, 1537, 1686
dicryl, 1590
diphenamid, 438
diquat, 1274
diuron, 1011, 1578
DMPA, 1590
isocil, 279, 1823, 1824
MH, 1184
monuron, 480
oil, 480, 1278
paraquat, 114, 479, 1274
phthalate, dimethyl 2,3,5,6-tetrachlorotere-, 1590
prometon, 1717
sodium chlorate, 1686
TCA, 206, 1686, 1714
trifluralin, 1111, 1590
cultural, 1686
description, 1280
growth responses, herbicides and growth regulators, 254, 1393
rubber, weed in, 1280
Cynodon plectostachyium, 684
Cyperus sp.
control, chemical
atrazine, 529, 648, 1618
carbamate, ethyl ethyl-*n*-butylthiol-, 529
carbamate, *n*-propyl di-*n*-propylthiol-, 529
chlorpropham, 900
2,4-D, 1187
EPTC, 110, 529, 648, 900
isocil, 279, 1824
MCPA, 1187
PEBC, 521, 648
propanil, 35, 900, 1192
simazine, 1618
control, cultural,
polythene mulch, 1618
Cyperus articulatus, 14, 35
Cyperus blysmoides, 1011
Cyperus bulbosus, 1506, 1619
Cyperus compressus, 83, 1262, 1582
Cyperus cuspidatus, 1582
Cyperus esculentus
competition, 1728
control, chemical
amitrole, 12, 1418
atrazine, 356, 1692
CDAA, 1246
CDEC, 1246
chloramben, 1248
diphenamid, 1248
diquat, 1617
DMPA, 1246
EPTC, 5, 356, 392, 1206, 1617, 1692
linuron, 1692
methyl bromide, 83
paraquat, 1617
PCP, 1248
PEBC, 1206, 1248
phthalate, dimethyl 2,3,5,6-tetrachlorotere-, 1246, 1248
potassium cyanate, 1248
solan, 1248
swep, 5
TCA, 1248
translocation studies, 566
Cyperus ridigifolius, 1011
Cyperus rotundus
biology, 198
control,
summary of research, Southern Weed Conf., 1895
recommendations, 1586
chemical,
amitrole, 182, 1689
ammonium thiocyanate, 198
arsenicals, 1693
atraton, 103
atrazine, 103, 197, 1234
benzonitrile, 3,5,-di-iodo-4-hydroxy-, 1818
carbamate, *t*-butyl di-*n*-propylthiol-, 571
carbamate, ethyl ethyl-*n*-butylthiol-, 1619
carbamate, *n*-propyl di-*n*-propylthiol-, 1619
chloramben, 103
chlorazine, 197
chlorpropham, 101
2,4-D, 101, 102, 103, 198, 530, 669, 1689, 1690, 1691, 1694, 1695
dalapon, 182
di-allate, 103
dipropalin, 1582
diuron, 101, 103, 1578
EPTC, 5, 101, 103, 1234, 1452, 1492, 1617, 1619, 1689
fenac, 101, 102, 103
4-fluorophenoxyacetic acid, 1694
hexachloroacetone, 197
ipazine, 197
linuron, 1234
MCPA, 103
monuron, 1207
paraquat, 1274, 1617
PEBC, 1619
phthalate, dimethyl 2,3,5,6-tetrachlorotere-, 101, 1582
prometon, 197
prometryne, 1011
propazine, 197
simazine, 103, 182
sodium fluoride, 198, 530
swep, 5
2,4,5-T, 1695
2,3,6-TBA, 102, 103
TCA, 198, 530, 1691
trifluralin, 1111
control, cultural
polythene sheeting, 1619
growth studies, 1748
Cytisus scoparius, 945

Dactylis spp., 115
Dactylis glomerata (cocksfoot, orchard grass)
desiccation, 428
weed control, chemical
cacodylic acid, 681
dalapon, 681
2,4-D, 679, 885, 1547
2,4-DB, 679, 885
di-allate, 416
dichlobenil, 416
dinoseb, 1547
DNOC, 1547
EPTC, 416
fenoprop, 885

Dactylis glomerata (cocksfoot, orchard grass), weed control—*cont.*
MCPA, 885, 1547
prometryne, 416
simazine, 416
2,4,5-T, 885, 1547
cultural
bitumen mulch, 1903
Dactylis glomerata
control, chemical
atrazine, 455
CDAA, 1491
dalapon, 941
2,2-dichlorobutyric acid, 941
diuron, 100
MH, 1063
paraquat, 881, 930, 941
simazine, 100, 455
control, cultural
rototilling, 455
Dactyloctenium aegyptium, 110, 1011
Dahlia spp. (dahlia), 711, 1556
Dasheen, see *Colocasia esculenta*
Datura spp., 1538
Datura stramonium, 65, 368, 1111
Daubentonia longiflora, 202
Daucus carota (carrot)
crop spacing, 1231
seeds, 802
weed control, recommendations, 689, 958
chemical,
allyl alcohol, 1564
ametryne, 434, 965
atraton, 101
atrazine, 101
benzoic acid, 2-methoxy-3,6-dichloro-, 1235
benzoic acid, 2-methoxy-3,5,6-trichloro-, 441
benzonitrile, 3,5-di-iodo-4-hydroxy-, 1818
calcium cyanamide, 1567
carbamate, *t*-butyl di-*n*-propylthiol-, 63, 571
carbothiolate, ethyl-1-hexamethyleneimine, 570
CDAA, 695, 961
CDEC, 695
chloramben, 63, 321, 435, 437, 692, 698, 699, 700, 724, 956, 960, 961, 965, 1233, 1243
chloroxuron, 956, 1254
chlorpropham, 68, 432, 441, 697, 699, 882, 956, 957, 965, 1237, 1480, 1561, 1567
desmetryne, 967
dichlobenil, 859
dicryl, 101, 102, 435, 697, 699, 700, 965, 967
N-(*β*-*O*-*O*-di isopropyldithiophosphorylethyl)benzene sulphonamide, 1812
dimexan, 1480
diphenamid, 961, 1234
diquat, 691
diuron, 101, 882, 1561
DMPA, 63, 690, 699, 700, 965
DNOC, 441, 1567
endothal, dioleyl amine, 961
EPTC, 101, 436
ether, 2,4-dichlorophenyl-4-nitrophenyl, 1109
ipazine, 699, 965, 968, 1233
Daucus carota (carrot), weed control, chemical—*cont.*
linuron, 63, 698, 875, 883, 961, 1234, 1340, 1480
MCPB, 1237
mecoprop, 441
monolinuron, 698, 967
monuron, 441, 698
oil, 68, 101, 102, 302, 698, 724, 967, 1480, 1560, 1567
OMU+BiPC, 693, 698, 724
paraquat, 691
PCA, 835
PEBC, 436
pentanamide, *N*-(3,4-dichlorophenyl) - 2 - methyl, 690, 697, 699, 700
phthalate, dimethyl 2,3,5,6-tetrachlorotere-, 63, 101, 695, 700, 1234
prometon, 435
prometryne, 432, 443, 698, 956, 965, 966, 967, 1340, 1480, 1566, 1568
propanil, 63
propazine, 432, 699, 724, 965, 966, 967, 968, 1233, 1567
propham, 1237
simazine, 101
simetryne, 698
solan, 63, 433, 435, 695, 697, 699, 700, 956, 1235, 1243
Stoddard solvent, 697, 1243
swep, 63
triazine, 2-chloro-4-isopropylamino - 6 - (3 - methoxypropylamino)-1,3,5-, 966
triazine, 2-methylthio-4-isopropylamino - 6 - methylamino-1,3,5-, 698, 966
trifluralin, 1234
Daucus carota, 1251, 1549, 1785
Delphinium spp. (delphinium), 77
Delphinium spp., 687
Delphinium barbeyi, 1330, 1718
Delphinium occidentale, 1702
Deschampsia spp., 116
Deschampsia caespitosa, 418, 536
Deschampsia flexuosa, 1227
Descurainia pinnata, 1225, 1228
Descurainia sophia, 1177
Desmodium tortuosum, 1614
Deutzia spp. (crop), 80, 1272
Dhal, see *Cajanus cajan*
Dialium aubrevillei, 138
Dianthera americana, 1032
Dianthus spp. (crop), 76, 454, 1580
Dicentra spp. (crop), 1580
Dieffenbachia sequine, 1545
Digitalis spp. (crop), 1580
Digitaria spp.
weed control, chemical, 85, 1587
arsenicals, 718, 988, 989, 1588, 1590
atrazine, 645, 1185, 1232
benzoic acid, 2-methoxy-3,6-dichloro-, 645
borate, 1715
carbamate, *n*-propyl di-*n*-propylthiol-, 1529
carbothiolate, ethyl-1-hexamethyleneimine, 570
CDEC, 998
chloramben, 367, 1529
chlordane, 718
Digitaria spp., weed control—*cont.*
chlorpropham, 998, 1529
2,4-D, 645, 998
2,4-DES, 998
dicryl, 1588, 1590
dinoseb, 371, 998
diphenamid, 65, 1529
diphenatrile, 988
dipropalin, 988
diuron, 97
DMPA, 371, 718, 988, 989, 1590
EPTC, 998, 1529
ethyl xanthogen disulphide, 63
linuron, 367, 645, 883
monuron, 1715
neburon, 998
phthalate, dimethyl 2,3,5,6-tetrachlorotere-, 718, 988, 989, 1529, 1590
simazine, 97, 349, 490
triazine, 2,4-bis(3-methoxypropylamino) - 6 - methylthio-1,3,5-, 367, 645
trichlorobenzoic acid, 1715
trifluralin, 908, 1590
control, cultural
plastic mulch, 998
Digitaria adscendens, 1280
Digitaria chinensis, 14
Digitaria decumbens, (pangola grass), 102, 103, 1328, 1654
Digitaria fuscescens, 1280
Digitaria gazensis, 1011
Digitaria ischaemum, 571, 713, 1233, 1589
Digitaria longiflora, 114
Digitaria sanguinalis
control, recommendations, 1260
control, chemical
aniline, *N*,*N*-di(*n*-propyl)-2,6-dinitro-, 716, 717
arsenicals, 87, 89, 462, 715, 716, 717, 719, 987, 1589
atrazine, 358, 359, 641
benzoic acid, 2-methoxy-3,6-dichloro-, 87, 641
benzoic acid, 2-methoxy-3,5,6-trichloro-, 87
carbamate, *t*-butyl di-*n*-propylthiol-, 571
CDAA, 389, 695, 977, 1246
CDAA-T, 358, 766, 977
CDEC, 389, 695, 1246
chloramben, 369, 977, 1248
chlordane, 715, 716, 717, 719, 987, 1438, 1589
chlorinated aliphatic acids, 1186
chlorpropham, 977
2,4-D, 89, 641, 1186
dalapon, 389
2,4-DEP, 389, 725, 1262
2,4-DES, 1262
dichlobenil, 977
dinoseb, 641
diphenamid, 725, 987, 1248, 1262
diphenatrile, 87, 713, 717, 1589
dipropalin, 89, 987
diquat, 14
diuron, 1213, 1830
DMPA, 87, 89, 389, 461, 715, 716, 719, 987, 1246, 1589
EPTC, 641, 1262
fenac, 641
fenoprop, 87, 89, 715

Digitaria sanguinalis, control—*cont.*
linuron, 725, 1213
MCPA, 87
mecoprop, 87
methyl bromide, 83
paraquat, 1420
PCP, 1248
PEBC, 725, 977, 1248, 1262
phthalate, dimethyl 2,3,5,6-tetrachlorotere-, 72, 87, 89, 461, 715, 716, 717, 719, 722, 987, 1186, 1246, 1262, 1438, 1589
polychlorodicyclopentadiene isomers, 987
potassium cyanate, 1248
prometryne, 1213
propanil, 35, 1192
propazine, 358, 725
simazine, 89, 641, 1262, 1589
solan, 977, 1420
2,4,5-T, 87
2,3,6-TBA, 87
TCA, 1248
triazines, 1830, 1860
trietazine, 1262
trifluralin, 87, 89, 987, 1262
Digitaria scalarum, 1623, 1624
Digitaria timorensis, 490
Digitaria velutina, 488, 535, 1011
Diodia teres, 883
Dioscorea spp. (yams), 102
Dioscorea spp., 1614
Diospyros spp., 1642, 1646, 1651, 1715
Diospyros sanza-minika, 138
Diospyros virginiana, 750
Diplotaxis tenuifolia, 1707
Discaria toumatou, 945, 1025
Drypetes sp., 138

Echinochloa spp., 1191
Echinochloa colonum, 14, 35, 900, 1192
Echinochloa crus-galli
biology, 1685
competition, 1196
control, chemical
acetate, 2,4-dinitro-6-(2-propyl) phenyl, 46
ametryne, 661
atrazine, 641
benzoic acid, 2-methoxy-3,6-dichloro-, 641
biuret, 1195
carbamate, *t*-butyl di-*n*-propyl thiol-, 571
carbamate, *n*-propyl di-*n*-propyl thiol-, 63
carbamate, ethyl di-*n*-butyl thiol, 39
carbothiolate, ethyl-1-hexamethyleneimine, 570
CDAA, 695, 961, 1246
CDEC, 695, 1246, 1438
chloramben, 661, 900, 961
2,4-D, 641, 1273
dalapon, 46, 1273
dichlobenil, 46, 1272, 1273
dicryl, 435
dinoseb, 32, 63, 641, 661
diphenamid, 63, 65, 438, 661, 683, 961
diquat, 46

Echinochloa crus-galli, control—*cont.*
diuron, 1272, 1273
DMPA, 661, 1246
endothal di-oleylamine salt, 961
EPTC, 5, 641, 900, 1206, 1522, 1684
ethyl xanthogen disulphide, 63
fenac, 641
linuron, 661, 883, 961
MCPA, 1273
naptalam, 1438
oxazolidine dione, 3-(*p*-chlorophenyl)-5-ethyl-2,4-, 885
PEBC, 63, 1206
phthalate, dimethyl 2,3,5,6-tetrachlorotere-, 661, 885, 1246, 1438
prometryne, 63
propanil, 35, 36, 46, 899, 902, 1194, 1225
propazine, 1567
simazine, 641, 1272, 1273
solan, 63, 435
swep, 5, 39, 46, 63, 1193, 1194
triazine, 2-chloro-4-ethylamino-6 - (3 - methoxypropylamino)-1,3,5-, 661
triazine, 2,4-bis(3-methoxypropylamino) - 6 - methylthio-1,3,5-, 39
trietazine, 39, 46
control, cultural, 1685
nitrogen requirements, 547
Echium plantagineum, 1349
Echium vulgare, 1549
Eichhornia crassipes
Australia, distribution, 1671
control, 1671
biological, 176
chemical
2,4-D, 1315
diquat, 1332, 1664, 1675, 1677
paraquat, 1289, 1677, 1826
ecology, 1676
review, 1671
seeds, 1076
Elaeis guineensis (oil palm), 106, 1281, 1289
Elaeis guineensis, 1826
Elaeagnus spp. (crop), 80
Elaeagnus commutata, 1027, 1229
Eleocharis spp., 173, 1665
Eleocharis acicularis, 175
Eleocharis caribaea, 1518
Eleocharis flaccida, 1518
Eleocharis parvula, 35
Eleocharis sulcata, 1518
Elephantopus mollis, 1012
Eleusine coracana (crop), 101
Eleusine indica
control, recommendations, 1260
chemical,
atrazine, 645
benzoic acid, 2-methoxy-3,6-dichloro-, 645
CDEC, 998
chloramben, 1248
chlorpropham, 998
2,4-D, 645, 998
2,4-DES, 998, 1262
2,4-DEP, 1262
dinoseb, 998, 1207
diphenamid, 65, 438, 1248, 1262
diphenatrile, 713

Eleusine indica, control, chemical—*cont.*
diuron, 488
EPTC, 998, 1262
linuron, 645
methyl bromide, 83
monuron, 488, 1207
neburon, 998
paraquat, 1626
PCP, 488, 1248
PEBC, 1248, 1262
phthalate, dimethyl 2,3,5,6-tetrachlorotere-, 72, 722, 1248, 1262
potassium cyanate, 1248
propanil, 35, 1192
simazine, 488, 1262
solan, 1248
TCA, 1248
triazine, 2,4-bis(3-methoxypropylamino)-6-methylthio-1,3,5-, 645
trietazine, 1262
trifluralin, 1111, 1262
control, cultural
plastic mulch, 998
description, 1260, 1280
rubber, weed in, 1280
Elodea spp., 167, 507, 1033
Elodea canadensis, 510, 515, 1032, 1677
Elodea densa, 1664, 1675, 1677
Elymus angustus, 807
Elymus caput-medusae, 687, 1330, 1746
Elymus junceus, 807
Emex australis, 893, 1339
Empetrum nigrum, 1757
Endive, see *Cichorium endiva*
Endymion spp. (crop), 1556
Enkianthus spp. (crop), 457
Epilobium spp., 1577
Equisetum spp., 336, 1246, 1758
Equisetum arvense
competiton, 481, 771
control, chemical
amitrole, 538, 771, 1345
amitrole-T, 772
atrazine, 497, 648
2,4-D, 1049, 1551
dalapon, 538
dichlorprop, 336
EPTC, 648
fenac, 538
isocil, 279
MCPA, 771, 772, 1049
PCA, 378
PEBC, 648
propazine, 1567
simazine, 453, 497, 538
sodium chlorate, 538
2,3,6-TBA, 772
TCA, 538
triazines, 538
ureas, 538
control, cultural, 771
Finland, frequency in cereals, 1072
Equisetum limosum, 507, 1659
Equisetum palustre, 421, 528, 541, 1061, 1348
Eragrostis cilianensis, 65, 570, 1246
Eragrostis porosa, 535
Erectites quadridentata, 1336
Eremocarpus setigerus, 1608

Eremochloa ophiuroides (centipede grass), 713, 1588
Eremurus spp. (crop), 1556
Eriocelum microspermum, 153
Erica spp. (crop), 453
Erica lusitanica, 945
Erigeron spp. (crop), 1580
Erigeron canadensis, 1228
Eriochloa ramosa, 14
Erodium botrys, 1703
Erodium cicutarium, 1224
Erodium moschatum, 1247
Erophila verna, 498
Eryngium spp., 1709
Erysimum spp., 1072
Erysimum cheiranthoides, 1353
Erythrina spp. (crop), 492
Erythrina lithosperma, (crop), 489
Erythronium spp. (crop), 1556
Erythrophleum ivorense, 138
Esclerocarpus coffeacolus, 944
Eucalyptus spp. (crop), 147, 200
Eucalyptus papuana, 213
Euonymus spp. (crop), 79, 80, 458, 498, 709
Euonymus fortuneii, 455
Eupatorium adenophorum, 199
Euphorbia spp., 1112, 1823, 1824
Euphorbia cyparissias, 785
Euphorbia esula, 197, 770, 781, 1057
Euphorbia exigua, 1739
Euphorbia maculata, 722
Euphorbia prostrata, 1714
Euphorbia supina, 1608
Euphrasia sp., 1756
Exocarpus bidwillii, 1377

Fagopyrum esculentum (buckwheat), 570
Fagopyrum tataricum, 615, 631, 782, 1056
Fagus spp. (beech), 115, 140, 499, 724
Fagus sylvatica, 129
Feijoa spp. (crop), 1582
Fescue, chewing, see *Festuca rubra* var. *commutata*
Fescue, meadow, see *Festuca pratensis*
Fescue, red, creeping, see *Festuca rubra*
Fescue, tall, see *Festuca arundinacea*
Festuca spp. (fescues), 416, 462, 713, 719, 885
Festuca spp., 11, 115, 1185, 1217
Festuca arundinacea (fescue, tall), 89, 679, 720
Festuca arundinacea, 1260
Festuca glauca, 77
Festuca megalura, 1225
Festuca ovina, 497, 1227, 1345, 1552
Festuca pratensis (meadow fescue), 418, 428, 1547
Festuca rubra (fescue, red, creeping)
desiccants, 428
weed control, chemical
arsenicals, 460, 714, 717
barban, 419, 1220
benzoic acid, 2-methoxy-3,6-dichloro-, 87
benzoic acid, 2-methoxy-3,5,6-trichloro-, 87
chlordane, 460, 714, 717
2,4-D, 1178
Festuca rubra (fescue, red, creeping), weed control—*cont.*
diphenatrile, 717
dipropalin, 717
DMPA, 460, 714, 717, 720
fenoprop, 87
mecoprop, 87
phthalate, dimethyl 2,3,5,6-tetrachlorotere-, 460, 714, 717
2,4,5-T, 87
2,3,6-TBA, 87
trifluralin, 87
Festuca rubra, 497, 1227, 1273
Festuca rubra var. *commutata* (fescue, chewings), 715, 720, 722, 723, 986
Festuca rubra var. *fallax*, 941
Festuca scoparia, 77
Ficus (crop), 163
Fimbristylis spp., 901
Fimbristylis miliacea, 35
Flax, see *Linum usitatissimum*
Flemingia congesta (crop), 490
Forsythia spp. (crop), 80, 709, 1272, 1556, 1577
Foxtail grass, see *Alopecurus pratensis*
Fragaria spp. (strawberry)
California, weeds of, 90
desiccation, 1002
photoperiodic induction, reversal with MH, 1800
runner control, 724
weed control, chemical, 8, 90, 1268, 1480
amitrole, 91, 445
atrazine, 93, 463, 1233
benzoic acid, 2-methoxy-3,6-dichloro-, 96, 466, 1263
carbamate, ethyl ethyl-*n*-butyl thiol-, 96
CDAA, 1273
CDEC, 998, 1233, 1563
chloramben, 474, 995, 1233
chloropicrin, 1593
chloroxuron, 468, 995, 1261
chlorpropham, 93, 445, 465, 474, 995, 998, 1000, 1004, 1594
2,4-D, 463, 998
dalapon, 91
2,4-DB, 1004
2,4-DEP, 725, 726, 1262, 1263
2,4-DES, 445, 464, 994, 995, 998, 999, 1000, 1004, 1233, 1262, 1263, 1563, 1594
dichlobenil, 463, 466
1,3-dichloropropane, 474
1,3-dichloropropene, 474, 1593
dinoseb, 96, 465, 998, 1000, 1273, 1563
diquat, 463, 464, 991, 994
diphenamid, 65, 725, 995, 1001, 1262, 1591
diuron, 93, 463
DMPA, 725, 1233
EPTC, 64, 96, 466, 998, 1233, 1262
fenuron, 995
ipazine, 1233
Karsil, 96, 466, 1233
linuron, 725
methyl bromide, 1004, 1593
methyl isocyanate, 474
monuron, 93
naptalam, 1563
neburon, 724, 996, 998
Fragaria spp. (strawberry), weed control—*cont.*
paraquat, 463, 464, 991, 994
PEBC, 96, 725, 1262
phthalate, dimethyl 2,3,5,6-tetrachlorotere-, 466, 724, 996, 1262, 1263, 1592
propargyl bromide, 1593
simazine, 93, 94, 96, 321, 463, 464, 465, 466, 468, 469, 474, 475, 619, 724, 993, 994, 995, 996, 1003, 1004, 1233, 1261, 1262, 1273, 1594
solan, 993, 1563
swep, 1591
trietazine, 96, 993, 1262, 1273
trifluralin, 1262
control, cultural, 994
asphalt mulch, 1563
plastic mulch, 91, 92, 470, 998, 1264
sawdust mulch, 91, 1273
Fragaria vesca, 100
Franseria tomentosa, 1701
Fraxinus spp. (ash), 80, 136, 1015, 1273
Fraxinus spp.
control, chemical
AMS, 1651
borate-TBA, 1646
2,4-D, 1639, 1642
fenuron, 204, 750
phenoxy compounds, 750
2,4,5-T, 1639, 1642
2,3,6-TBA, 750
Fraxinus excelsior, 129, 1345
Fraxinus pennsylvanica, 157
Freesia spp. (freesia), 1255, 1556, 1577
Fritillaria imperialis (crop), 1556
Fritillaria meleagris (crop), 1556
Fumaria spp., 1072, 1502
Fumaria hygrometrica, 994
Fumaria officinalis
control, chemical
CDEC, 964
chloramben, 692, 964
chlorpropham, 444, 964
dichlobenil, 624
diuron, 444, 911, 920
endothal, 920
linuron, 911
PCA, 1112
prometryne, 443
propham, 920
simazine, 964, 1576
SMA, 93
triazine, 2-methylthio-4-methylamino - 6 - isopropylamino-1,3,5-, 932
control, cultural, 893

Gaillardia spp. (crop), 1580
Galeopsis spp., 334, 376, 914, 1353, 1568
Galeopsis ladanum, 377, 1508
Galeopsis tetrahit
control, chemical
atrazine, 1507
benzoic acid, 2-methoxy-3,6-dichloro-, 1048
2,4-D, 1178
dichlorprop, 333
endothal, 41

Galeopsis tetrahit, control—*cont.*
MCPA, 1048, 1178
propham, 41
simazine, 1507
2,4,5-T, 1048
control, cultural
harrowing, 879
seeds, 879
Galinsoga ciliata, 706, 956, 1246
Galinsoga parviflora
chloroxuron, uptake by roots, 829
control, chemical
ametryne, 1538
atrazine, 668
CDEC, 998
chloramben, 956, 1506
chloroxuron, 956, 1538
chlorpropham, 432, 956, 998, 1237, 1538, 1567
2,4-D, 998
2,4-DES, 998
dimexan, 432
dinoseb, 998
diphenamid, 1538
diuron, 474, 668, 1538
EPTC, 110, 998
fenac, 1506
ipazine, 1538
MCPB, 1538
monuron, 668, 1538
neburon, 998
OMU, 1538
PCA, 376
pentanamide, *N*-(3,4-dichlorophenyl)-2-methyl, 1538
phthalate, dimethyl 2,3,5,6-tetrachlorotere-, 1538
prometon, 668
prometryne, 956, 1538
simazine, 668
solan, 956, 1538
trietazine, 1538
urea, *N*-3-(trifluoromethylphenyl)-*N'*,*N'*-dimethyl-, 1538
control, cultural
plastic mulching, 998
Galium aparine
competition, 618
control, chemical
acetic acid, 2-oxobenzothiazolin-3-yl-, 1116
ametryne, 931
atrazine, 1323, 1508
benzoic acid, 2-methoxy-3,6-dichloro-, 329, 334, 335
benzoic acid, trichloro-, 335
benzonitrile, 3,5-di-iodo-4-hydroxy-, 1818
calcium cyanamide, 1323
chloralchloracetamide, 380
chloramben, 329
di-allate, 380
dichlobenil, 433
dichlorprop, 329, 336
dinoseb, 1508
fenoprop, 329
MCPA, 334, 335
mecoprop, 329, 628
OMU+BiPC, 376, 377, 1323
PCA, 376, 377, 378, 922, 1112
prometryne, 443
simazine, 1323
simetryne, 931
2,4,5-T, 335
TCA, 380
Galium aparine, control—*cont.*
tri-allate, 380
triazine, 2-methylthio-4-methylamino - 6 - isopropylamino-1,3,5-, 931
control, cultural
harrowing, 879
frost, effects of, 630
seeds, 879
separation of seed from beet seed, 190
Galium asprellum, 83
Galium hercynicum, 1227
Galium mollugo, 686
Galthonia spp. (crop), 1556
Garcinia polyantha, 138
Gardenia, (crop), 82
Garlic, see *Allium sativum*
Gastrolobium grandiflorum, 799
Gaylussacia spp., 750
Geranium spp., 426
Geranium carolinianum, 89
Geranium pusillum, 87
Ginger, see *Zingiber officinale*
Gladiolus spp. (crop)
weed control,
recommendations, 1480, 1556
chemical,
acetic acid, 2-methoxy-3,6-dichlorophenyl-, 1108
amitrole, 984
CDEC, 76, 1563
chlorpropham, 452, 454, 984, 1255
2,4-D, 984
2,4-DES, 1563
dicryl, 76, 1578
dimexan, 454
dinoseb, 712, 1255, 1563
diquat, 76
diuron, 1578
DNOC, 984
EPTC, 76, 1578
linuron, 883
naptalam, 1563
OMU+BiPC, 452
PCP, 984
phthalate, dimethyl 2,3,5,6-tetrachlorotere-, 76
simazine, 76, 452, 454, 1255, 1578
solan, 1563
2,4,5-T, 984
cultural,
asphalt mulch, 1563
Glechoma hederacea, 87
Glyceria aquatica, 507, 509, 1659
Glyceria fluitans, 1030, 1659
Glyceria maxima, 1665
Glycine javanica (crop), 1550
Glycine max (soybean)
sap extracts and simazine breakdown, 1793
weed control,
summary of research, Southern Weed Conf., 1895
recommendations, 1483
chemical,
ametryne, 368, 661
atraton, 368, 1861
atrazine, 1861
carbamate, *t*-butyl di-*n*-propyl thiol-, 571
carbamate, *n*-propyl di-*n* propyl thiol-, 1199
Glycine max (soybean), weed control, chemical—*cont.*
carbothiolate, ethyl-1-hexamethyleneimine, 570
CDAA, 39, 368, 1198
chloramben, 39, 367, 368, 369, 661, 1200
chlorpropham, 368
dalapon, 1198, 1199
2,4-DB, 1201
2,6-dichlorobenzamide oxime hydrochloride, 1812
dinoseb, 39, 370, 371, 661
diphenamid, 438, 661
diuron, 257
DMPA, 39, 371, 661
fenac, 1536
ipaton, 368
ipazine, 1861
linuron, 39, 367, 368, 661, 883, 1489
naptalam, 1198
PCP, 368
PEBC, 1199
phthalate, dimethyl 2,3,5,6-tetrachlorotere-, 661
prometryne, 368
simazine, 1861
sodium dichloroisobutyrate, 40
sulphonamide, *N*-(*β*-*O*-*O*-diisopropyl dithiophosphorylethyl)benzene, 1812
triazine, 2,4-bis(3-methoxypropylamino) - 6 - methylthio-1,3,5-, 39, 367
triazine, 2-chloro-4-ethylamino - 6 - (3 - methoxypropylamino),-1,3,5-, 661
triazines, 1860
trietazine, 39
trifluralin, 908
cultural
disking, 1199
flaming, 1198
Gnaphalium spp., 1072
Gnaphalium uliginosum, 498
Gooseberry, see *Ribes* spp.
Gossweilerodendron balsamiferum, 153
Gossypium sp. (cotton)
defoliants, 11, 52, 53, 678, 868, 1819
drift damage from herbicides, 202, 1874
extract of degrading simazine, 1793
lysigenous glands, herbicide accumulation, 1417
tri-band concept, 1532
weed control,
economics, 1475, 1533
summary of research, Southern Weed Conf., 1895
chemical,
aerial application, 1881
ametryne, 50, 1213, 1538
amitrole, 1537
arsenicals, 1213
atrazine, 101
benzoic acid, 2-methoxy-3,6-dichloro-, 1716
benzoic acids, polychloro, 1536
benzonitrile, 3,5-di-iodo-4-hydroxy-, 1818

Gossypium sp. (cotton), weed control, chemical—*cont.*
carbamate, *t*-butyl di-*n*-propyl thiol-, 571
carbothiolate, ethyl-1-hexamethyleneimine, 570
chloroxuron, 1538
chlorpropham, 1212, 1538
2,4-D, 1215, 1536
dalapon, 1535, 1537, 1682
dicryl, 11, 50, 1213
diphenamid, 50, 438, 1538
diuron, 11, 50, 101, 885, 1212, 1214, 1532, 1533, 1534, 1537, 1538
EPTC, 1492, 1532
fenac, 1536
fenuron, 1538
ipazine, 50, 1538
naphtha, 1532, 1533
linuron, 1213, 1214
MCPB, 1538
monuron, 1537, 1538
neburon, 1538
norea, 50
OMU, 1538
PCA, 835
pentanamide, *N*-(3,4-dichlorophenyl) - 2 - methyl, 1538
phthalate, dimethyl 2,3,5,6-tetrachlorotere-, 101, 885, 1212, 1538
prometryne, 1212, 1213, 1538
simazine, 1661
solan, 1538
2,4,5-T, 1536
2,3,6-TBA, 1536
TCA, 1682
triazines, 1830, 1860
trietazine, 1538
trifluralin, 1437
urea, 11
urea, *N*-(3-trifluoromethylphenyl) - *N′ N′* - dimethyl-, 1538
cultural
flaming, 1532
petroleum mulch, 1212
ploughing, 51
Gramineae, 225
Grape, see *Vitis vinifera*
Grapefruit, see *Citrus paradisi*
Groundnut, see *Arachis hypogaea*
Guar, see *Cyamopsis tetragonoloba*

Halogeton glomeratus, 184, 687
Hamamelis spp. (crop), 80
Hamamelis virginiana, 1639
Hedera spp. (crop), 81, 457, 709, 713
Hedera helix, 234
Helenium spp., 687
Helenium hoopesii, 1718
Helenium tenuifolium, 1366
Helianthus annuus (sunflower)
host to *Orobanche*, 49, 235, 672, 1531
weed control, chemical, 693, 835, 1046
Helianthus annuus, 685
Helleborus spp. (crop), 1556
Hemerocallis spp., 711, 1580
Hemp (marijuana), see *Cannabis sativa*

Heracleum spp., 1551
Heteranthera spp., 35, 511
Heteranthera dubia, 1677
Heuchera spp. (crop), 1580
Hevea brasiliensis (rubber)
cover crops, 738
Malaya, weeds of, 1279, 1625
weed control, 106
chemical
ametryne, 103, 113
amitrole, 740, 1626
arsenicals, 112
atraton, 103, 113, 740
atrazine, 103, 113, 740
benzoic acid, 2-methoxy-3,6-dichloro-, 740
benzoic acid, 2-methoxy-3,5,6-trichloro-, 740
2,4-D, 112
dalapon, 103, 113, 740
dichlobenil, 740
diuron, 103, 113, 737
fenac, 103, 113
neburon, 740
OMU+BiPC, 740
paraquat, 737, 1289, 1626
prometon, 103, 113, 740
prometryne, 103, 113, 740
simazine, 103, 113, 737, 740
2,4,5-T, 112
TCA, 103, 113, 737
Hibiscus sp. (crop), 80, 82
Hibiscus cannabinus, 65, 101
Hibiscus cannabinus (kenaf), 65, 101
Hibiscus esculentus (okra), 10, 434, 694
Hibiscus trionum, 65, 1111
Hieracium spp., 1050
Hippeastrum spp., 1556
Holcus lanatus (Yorkshire fog), 1543
Holcus lanatus
control, chemical
amitrole, 538
amitrole-T, 538
atrazine, 125, 538
dalapon, 125, 497, 1227
diquat, 986, 991
DMPA, 986
MCPA, 1216
neburon, 986
paraquat, 991, 1216
simazine, 125, 538
sodium 2,2-dichloroisobutyrate, 497
description, 1224
Holcus mollis, 125, 1227, 1233
Holocarpha virgata, 1703
Homalium spp., 138
Hops, see *Humulus lupulus*
Hordeum spp., 11, 46
Hordeum jubatum, 807
Hordeum leporinum, 948
Hordeum murinum, 179, 945
Hordeum vulgare (barley)
competition, 780, 805, 1729
extract from weed roots, effect of, 807
weed associations, Yugoslavia, 217
weed control, chemical
ametryne, 339
amitrole, 339
amitrole-T, 339
barban, 331, 338, 339, 340, 619, 627, 629, 633, 1042, 1044, 1499

Hordeum vulgare (barley) weed control—*cont.*
benzoic acid, 2-methoxy-3,6-dichloro-, 7, 330, 354, 636
benzoic acid, 2-methoxy-3,5,6-trichloro-, 7, 330, 636
benzonitrile, 3,5-di-iodo-4-hydroxy-, 1818
calcium cyanamide, 337, 340
carbamate, *t*-butyl di-*n*-propyl thiol-, 571
carbamate, α-carbo-(2,4-dichlorophenoxyethoxy) ethyl-*N*-phenyl-, 1044
carbothiolate, ethyl-1-hexamethyleneimine, 1812
chloralchloracetamide, 339
chloramben, 328, 329, 339
chlorpropham, 339
2,4-D, 7, 18, 636, 1225, 1490, 1547
2,4-DEP, 339
di-allate, 339, 340, 619, 621, 625, 626, 629, 633, 886, 887, 891, 1043, 1359
dichlobenil, 339, 340, 624
dichlorprop, 336, 1358
dicryl, 339
dinoseb, 18, 322, 325, 340, 1487
diphenamid, 1110, 1541
diuron, 339, 885
DNOC, 18, 325, 340, 1487, 1490, 1547
EPTC, 339
fenac, 339
fenoprop, 7, 338, 780
linuron, 339
MCPA, 7, 17, 18, 322, 325, 334, 337, 338, 339, 342, 636, 780, 889, 1358, 1490, 1547
MCPB, 18, 339
mecoprop, 7, 18, 331, 338, 780, 1048
monolinuron, 339
monuron, 885
naptalam, 328, 339
neburon, 7
OMU+BiPC, 340, 342
PEBC, 339
prometryne, 329, 339
propanil, 339
propazine, 328
simazine, 337, 340, 1496, 1792
simetryne, 339, 340
solan, 339
2,4,5-T, 7, 342, 636
2,3,6-TBA, 7, 330, 337, 338, 636, 780
TCA, 339
tri-allate, 621, 625, 626, 629, 633, 886, 887, 1043, 1181
triazine, 2-chloro-4-allylamino-6 - isopropylamino - 1,3,5-, 339, 340
triazines, chloro, 7
Hordeum vulgare, 5, 190, 303, 885
Hosta spp. (crop), 77
Humulus lupulus (hops), 481, 1282
Hyacinthus spp. (hyacinths), 1556
Hydrangea spp. (hydrangea), 80, 454, 457
Hydrocharis morsus-ranae, 507
Hydrochloa caroliniensis, 1677
Hydrodictyon spp., 1033, 1677
Hymenocardia ulmoides, 153

Hymenoxys richardsoni, 1704
Hypericum spp. (crop), 1580
Hypericum calycinum, 505
Hypericum humifusum, 130
Hypericum perforatum, 557, 786
Hypochaeris spp., 1050
Hypochaeris radicata, 1224
Hyptis atrorubens, 1333, 1545
Hyptis suaveolens, 944

Ilex spp. (crop), 83, 133, 457, 1273
Ilex crenata, 1538
Ilex vomitoria, 1638
Impatiens sp. (crop), 76
Impatiens parviflora, 212
Imperata cylindrica, 1625, 1626, 1868
Indigofera cordifolia, 34
Ipomoea spp., 35, 189, 944, 1201, 1210
Ipomoea batatas (sweet potatoes)
competition, 1728
haulm killing, 101
weed control, recommendations, 689
chemical,
ametryne, 103
atraton, 103
atrazine, 103
benzoic acid, 2-methoxy-3,6-dichloro-, 1210
carbamate, *n*-propyl di-*n*-propyl thiol-, 1529
CDEC, 48
chloramben, 48, 102, 103, 1211, 1529
dalapon, 103
2,4-DES, 103
dichlobenil, 1211
diphenamid, 65, 915, 1210, 1211, 1529
diuron, 103
DMPA, 103
EPTC, 48, 1210, 1529
fenac, 103
naptalam, 48, 64, 1210, 1211
neburon, 102, 103
OMU+BiPC, 103
phthalate, dimethyl 2,3,5,6-tetrachlorotere-, 1210, 1211, 1529
prometon, 103
prometryne, 103, 1210
propanil, 103
simazine, 103
TCA, 102, 103
triazine, 2-allylamino-4-chloro-6-isopropylamino-1,3,5-, 960
trifluralin, 1210

Ipomoea eriocarpa, 1378
Ipomoea iearii, 1025
Ipomoea purpurea, 371
Ipomoea sibirica, 1059
Ipomoea sinensis, 535
Ipomoea trifida, 202
Iris spp. (crop), 77, 454, 711, 1556, 1580
Iris spp., 1659
Ischaemum aristatum, 490
Ischaemum rugosum, 901
Isoloma capanulata, 138
Iva axillaris, 788, 807, 1049

Ixora spp., 82
Ixia spp., 1556
Ixiolirion spp., 1556

Juglans spp., 204
Juglans regia (walnut), 498
Julbernardia globiflora, 1187
Juncus spp., 1033, 1659
Juncus bufonius
control, chemical
atrazine, 497
chloramben, 474
di-allate, 383
dichlobenil, 340, 433
dinoseb, 340
diuron, 80, 383
linuron, 400
monolinuron, 400
neburon, 80, 497
oil, 498
OMU+BiPC, 340
PCP, 498
pentanamide, *N*-(3,4-dichlorophenyl)-2-methyl, 498
simazine, 340, 474, 497
Juncus effusus, 325, 733
Juniperus spp. (crop)
weed control, chemical
amitrole, 709
atrazine, 709, 1273, 1582
CDEC, 458, 694
chloramben, 458, 1581, 1582
chlorpropham, 457, 458
dalapon, 715
dichlobenil, 1582
dinoseb, 1582
diphenatrile, 1582
dipropalin, 1582
diuron, 457
DMPA, 457
EPTC, 458
neburon, 1273
norea, 1583
phthalate, dimethyl 2,3,5,6-tetrachlorotere-, 1582
propazine, 1273, 1582
simazine, 76, 457, 498, 709, 1581, 1582
triazine, 2-chloro-4-ethylamino-6-(3-methoxypropylamino)-1,3,5-, 1582
Juniperus spp., 1642
Juniperus monosperma, 1553, 1747
Jussiaea spp., 901
Jussiaea diffusa, 202, 1032
Jussiaea repens, 173, 1666

Kaffircorn, see *Sorghum vulgare*
Kale, common, see *Brassica oleracea* var. *acephala*
Kallstroemia californica, 1330
Kallstroemia grandiflora, 1330
Kalmia spp. (crop), 458
Kalmia angustifolia, 615, 1595, 1597, 1784
Kenaf, see *Hibiscus cannabinus*
Kerria spp. (crop), 80
Kirkianella spp., 1050
Klainedoxa gabonensis, 153
Kochia scoparia, 1031, 1111
Kohlrabi, see *Brassica caulorapa*
Kolkwitzia spp. (crop), 80, 1272

Laburnum spp. (crop), 80
Laburnum anagyroides, 497
Lactuca spp., 1050
Lactuca sativa (lettuce)
weed control, recommendations, 689, 698
chemical, 697
allyl alcohol, 1561
amitrole-T, 432
atrazine, 101
carbamate, *t*-butyl di-*n*-propyl thiol-, 571
carbothiolate, ethyl-1-hexamethyleneimine, 570
CDAA, 695
CDEC, 67, 695, 964, 1560
chloramben, 436, 690, 692, 964
chlorpropham, 432, 695, 964, 1562
dichlobenil, 436
2,4-dichlorophenyl-4-nitrophenyl ether, 1109
dinoben, 692
diquat, 691
diuron, 101
EPTC, 436
ether, 2,4-dichlorophenyl-4-nitrophenyl, 1109
MCPA, 696
paraquat, 691
PEBC, 436
phthalate, dimethyl 2,3,5,6-tetrachlorotere-, 101, 436
prometryne, 432
simazine, 964
solan, 695
TCA, 432
urea, 1-(chloro-2-norbornyl)-3,3-dimethyl-, 436
Lagarosiphon major, 1030
Lagenaria vulgaris (bottle gourd), 1406
Lamium spp., 376, 378, 1567
Lamium amplexicaule, 932, 956, 1109, 1237
Lamium purpureum, 340, 383, 432, 441, 1237
Lantana camara, 164, 1025, 1656, 1726
Lapsana spp., 1050, 1072
Lapsana communis, 17, 324, 334
Larix spp. (larch)
weed control, chemical
atrazine, 136, 497
chloramben, 497, 498
chlorpropham, 497
2,4-D, 128, 743
dalapon, 115
dimexan, 497
diquat, 497
diuron, 498
naptalam, 497
neburon, 497
OMU + BiPC, 497
simazine, 120, 497, 498
2,4,5-T, 128, 743
Lathyrus odoratus, 454
Laurus spp. (crop), 459
Lecanodiscus cupanoides, 153
Leek, see *Allium porrum*
Leersia spp., 471
Lemna spp., 175, 511, 1033, 1314
Lemna gibba, 1369

Lemna minor
bioassay test plant, 1846
competition, 1369
control, 515, 760, 1030, 1677
Lemna polyrrhiza, 1369
Lemna trisulca, 507
Lemon, see *Citrus limon*
Leontodon spp., 1050
Leontodon autumnalis, 1222
Leontodon hispidus, 41, 1224
Lepidium sativum (garden cress), 691, 1236
Lepidium sativum, 1525
Lepidium virginicum, 89, 1572
Leptochloa spp., 35
Leptochloa scabra, 14
Lespedeza spp. (bush clover), 1483
Lespedeza stipulaceae, 438, 915
Lettuce, see *Lactuca sativa*
Leucothoe spp., 457
Ligustrum spp. (privet)
weed control, chemical
atrazine, 82, 457, 1582
carbamate, *t*-butyl di-*n*-propyl thiol-, 1582
CDEC, 76, 694
chloramben, 76, 1582
chlorpropham, 80
dichlobenil, 1272, 1582
dinoseb, 76, 1582
diphenatrile, 1582
diuron, 80, 498
DMPA, 457
EPTC, 76
neburon, 80
norea, 1582
OMU + BiPC, 80
phthalate, dimethyl 2,3,5,6-tetrachlorotere-, 457, 1582
propazine, 1582
simazine, 76, 80, 82, 457, 498, 1582
triazine, 2-chloro-4-ethylamino-6-(3-methoxypropylamino)-1,3,5-, 1582
Lilium spp. (crop), 1164, 1556
Lime, see *Citrus aurantifolia*
Limonium spp. (crop), 1580
Linaria spp., 224
Linaria canadensis, 83
Linaria vulgaris, 557, 1057, 1368, 1699
Linseed (flax), see *Linum usitatissimum*
Linum usitatissimum (flax, linseed)
weed control, chemical
ametryne, 339
amitrole, 339
amitrole-T, 339
barban, 339, 402, 629, 935, 1044
benzoic acid, 2-methoxy-3,6-dichloro-, 674, 935
benzoic acid, 2-methoxy-3,5,6-trichloro-, 674
carbamate, α-carbo(2,4-dichlorophenoxyethoxy)ethyl-*N*-phenyl, 1044
carbamate, 2-methoxy-(3,6-dichlorophenylethoxy)ethyl - *N*-phenyl, 1044
barban, 339, 402, 629, 935, 1044
chloralchloracetamide, 3, 399
chloramben, 339, 401
chlorpropham, 339
2,4-D, 3, 401, 402, 674, 935
dalapon, 7, 401, 402
Linum usitatissimum (flax, linseed), weed control—*cont.*
2,4-DB, 674, 935
2,4-DEP, 339
di-allate, 339, 401, 621, 629, 891, 935
dichlobenil, 339
dicryl, 339
dinoseb, 3, 398
diuron, 339
DNOC, 3, 400, 675, 1480, 1481
EPTC, 339
fenac, 339
linuron, 339, 400
MCPA, 3, 7, 339, 398, 401, 402, 675, 676, 1480, 1481
MCPB, 7, 339
monolinuron, 339, 400
naptalam, 339
PEBC, 339
prometryne, 339
propanil, 339
propham, 2
simetryne, 339
solan, 339
TCA, 339, 399
tri-allate, 629, 935
triazine, 2 - chloro - 4 - allyl - amino - 6 - isopropylamino - 1,3,5-, 339
triazine, 2 - methoxy - 4,6 - bis-methoxypropylamino - 1,3,5-, 573
uracil, 1822
urea, methoxy methyl, 399
Liquidambar styraciflua, 1641, 1644, 1646, 1648, 1651
Liriodendron tulipifera, 1639, 1651
Lithospermum arvense, 893
Lobelia spp. (crop), 76
Lolium spp. (ryegrass), 411, 420, 943
Lolium spp., 11
Lolium multiflorum (annual ryegrass), 339, 715, 1507, 1547
Lolium multiflorum, 570, 618
Lolium perenne (perennial ryegrass)
desiccation, 428
weed control, chemical
arsenicals, 461
butyric acid, 2,2-dichloro, 1040
2,4-D, 461, 1547
di-allate, 416
dichlobenil, 416
dinoseb, 1547
diquat, 1040
DMPA, 461, 720
DNOC, 1547
EPTC, 416
fenoprop, 461
MCPA, 1547
paraquat, 1040
phthalate, dimethyl 2,3,5,6-tetrachlorotere-, 461, 722
prometryne, 416
simazine, 416
2,4,5-T, 1547
TCA, 1040
weed control, cultural
bitumen mulch, 1903
Lolium perenne
associations, 1739
control, chemical
atrazine, 1233
MCPA, 1562
Lolium perenne, control—*cont.*
paraquat, 59, 881, 930, 941, 1233
simazine, 1233
Lomatium leptocarpum, 1309
Lonicera spp. (crop), 80, 1272, 1715
Lonicera japonica, 1025, 1294
Loranthus spp., 164
Lotus corniculatus (birdsfoot trefoil)
weed control,
recommendations, 1483
chemical
2,4-D, 947, 1547
dalapon, 427
2,4-DB, 56, 58, 423, 427, 947, 1549
dichlorprop, 56
dinoseb, 947, 1548
diphenamid, 438, 915
DNOC, 947
fenoprop, 423, 686, 1549
MCPA, 56, 947, 1547
MCPB, 947
neburon, 427
2,4,5-T, 1547
Lotus pedunculatus, 1548
Lucerne (alfalfa), see *Medicago sativa*
Ludwigia spp., 167
Luffa acutangula (ribbed gourd), 1406
Lupin, see *Lupinus* spp.
Lupinus spp. (lupin), 949, 950, 1141, 1851
Lupinus alba, 61
Lycium ferocissimum, 945, 1025
Lycopersicon esculentum (tomato)
compost contaminated with herbicides, effect of, 73
drift damage from herbicides, 1876
host to parasite, 235
trace elements and 2,4,5-T, 1789
weed control,
recommendations, 689
chemical,
allyl alcohol, 1249
ametryne, 1252
atraton, 101
atrazine, 101
carbamate, *t*-butyl di-*n*-propyl thiol-, 571
carbothiolate, ethyl - 1 - hexamethyleneimine, 570
CDAA, 695, 977
CDAA-T, 977
CDEC, 63, 71, 448, 694, 695, 1563
chloramben, 63, 448, 449, 615, 707, 737, 960, 977, 1248
chlorpropham, 977,
2,4-D, 1235, 1253
2,4-DES, 1563
dichlobenil, 63, 977, 1272
dinoseb, 1235, 1563
diphenamid, 63, 65, 72, 438, 615, 737, 1232, 1248, 1252
diuron, 101
DMPA, 707
EPTC, 436, 449, 707
linuron, 1234
MCPA, 1235
metham, 1249
monuron, 875
naptalam, 1563
neburon, 707
paraquat, 1420
PCA, 835
PCP, 1248

Lycopersicon esculentum (tomato), weed control, chemical—*cont.*
PEBC, 64, 71, 72, 436, 977, 1232, 1248, 1249, 1252
phthalate, dimethyl 2,3,5,6-tetrachlorotere-, 63, 72, 101, 707, 1248
potassium cyanate, 63, 1248
prometryne, 63, 1252
propanil, 63, 737, 1232, 1252
pyrimidine-, 2 - benzylmercapto - 4,6 - dimethyl -, 960
simazine, 63, 101, 449
solan, 63, 448, 449, 615, 707, 737, 977, 978, 979, 1232, 1235, 1247, 1248, 1250, 1251, 1272, 1420, 1563, 1798
swep, 5
2,4,5-T, 1789
TCA, 63, 1248
trifluralin, 737
cultural
asphalt mulch, 1563
Lysimachia sp. (crop), 77
Lythrum spp., 536

Macrozamia spp., 799
Madia glomerata, 1309
Magnolia spp. (magnolia), 80
Magnolia virginiana, 204
Mahonia spp. (crop), 80
Maize, see *Zea mays*
Malus spp. (apple)
weed control, chemical
amitrole, 476, 478, 588, 729, 731, 1009, 1261, 1272, 1603
amitrole-T, 474, 730, 1261, 1271
AMS, 731
atrazine, 96, 474, 476, 729, 1009, 1607
2,4-D, 476, 477
dalapon, 474, 475, 476, 477, 478, 730, 1009, 1272
dichlobenil, 321, 1007, 1272
dinoseb, 477, 1272
diquat, 96, 1274
diuron, 96, 463, 474, 476, 477, 478, 1009, 1261, 1272, 1603
DNOC, 477, 1604
fenac, 477
fenoprop, 731
MCPA, 476, 477, 1272
MH, 1562
monolinuron, 476
monuron, 463, 476, 477
oil, 1272
paraquat, 96, 1274
simazine, 80, 96, 321, 474, 475, 476, 477, 478, 729, 730, 1009, 1271, 1272, 1603, 1604, 1605, 1607
2,4,5-T, 463, 731
TCA, 474
Malva neglecta, 1739
Malvestrum spp., 954
Mangels, see *Beta vulgaris*
Manihot spp. (cassava), 491
Manihot utilissima, 103
Mardania nudiflora, 103
Matricaria spp.
control, chemical
benzoic acid, 2-methoxy-3,6-dichloro-, 333, 334
Matricaria spp., control—*cont.*
2,4-DB, 333
dichlorprop, 333
diquat, 981
linuron, 911
MCPA, 333, 334
mecoprop, 1487
OMU + BiPC, 377
paraquat, 981
PCA, 328, 377, 378
prometryne, 443, 911
propazine, 328
urea, 1487
Matricaria matricarioides, 56, 742
Matricaria recutita
control, chemical
ametryne, 330
benzoic acid, 2-methoxy-3,6-dichloro-, 335
benzoic acid, trichloro-, 335
benzonitrile, 3,5 - di - iodo - 4 - hydroxy-, 1818
calcium cyanamide, 337, 340
chloramben, 328
dinoseb, 340, 398
diuron, 383
DNOC, 340
MCPA, 335, 337, 340, 398
mecoprop, 337
naphthoxyacetic acid derivatives, 341
phthalate, dimethyl 2,3,5,6-tetrachlorotere-, 433
solan, 433
2,4,5-T, 335
2,3,6-TBA, 337
Matthiola spp. (crop), 1255
Maximilliana sp., 103
Medicago hispida, 1716
Medicago lupulina (black medick), 947, 1547, 1548
Medicago lupulina, 32, 618, 1548
Medicago media, 807
Medicago sativa (lucerne)
desiccation, 1548
herbicide residues in, 1851
root exudate, 1370
USA, weeds of, 57
weed control,
recommendations, 10, 1483
chemical, 57
barban, 402, 1220
benzonitrile, 3,5-di-iodo-4-hydroxy-, 1818
carbothiolate, ethyl-1-hexamethyleneimine, 1812
chloramben, 401
2,4-D, 58, 401, 402, 1178, 1491
dalapon, 401, 402, 424, 425, 683, 684, 1548
2,4-DB, 56, 58, 60, 423, 683, 1178, 1491, 1549
di-allate, 401, 1220
dichlorprop, 56
dinoseb, 303, 637, 682, 1548
diphenamid, 438, 683, 915
diuron, 425
DNOC, 1851
EPTC, 5, 11, 637, 682
fenoprop, 423
fenuron, 637
MCPA, 401, 402, 1178
MCPB, 56, 58, 1178
neburon, 637, 682
paraquat, 424, 425
Medicago sativa (lucerne), weed control, chemical—*cont.*
simazine, 1225
swep, 5
TCA, 1548
cultural, 57
Melandrium noctiflorum, 1739
Melastoma malabathricum, 1629
Melia azederach, 204
Melica sp., 1723
Melica ciliata, 1723
Melica nutans, 1723
Melica picta, 1723
Melica uniflora, 499, 1723
Melilot (sweet clover), see *Melilotus alba*
Melilotus alba (sweet clover), 685
Melilotus alba, 202, 1716
Melilotus officinalis, 807
Melilotus officinalis (sweet clover, biennial), 685
Melinis minutiflora, 54
Melochia corchorifolia, 35
Melon, musk melon, see *Cucumis melo*
Melon, water, see *Citrullus vulgaris*
Mentha spp. (mint), 9, 1542
Mentha arvensis, 1729
Mentha piperita (peppermint), 1483
Mentha spicata (crop), 1483
Mercurialis annua, 443
Mercurialis perennis, 495, 499
Mesembryanthemum spp. (crop), 81, 1110
Microdesmis puberula, 153
Microseris spp., 1050
Mikania scandens, 114
Millet, bulrush, see *Pennisetum typhoideum*
Millet, foxtail, see *Setaria italica*
Mimosa casta, 103, 737, 1654
Mimosa invisa, 1614, 1655
Mimosa pudica, 100, 102, 103, 737, 1654
Mint, see *Mentha* spp.
Molinia sp., 115, 1552
Molinia caerulea, 410, 499, 1074, 1227, 1552
Mollugo verticillata, 65, 641, 975, 1210
Monodora myristica, 138
Montbretia spp., 1556
Montbretia crocosmiiflora, 195
Morinda reticulata, 799
Morus spp., 1646
Mosses, see *Musci* spp.
Muhlenbergia schreberi, 721, 1259, 1260
Musa sapientum (banana)
weed control, 106
chemical, 1268
ametryne, 103
atraton, 103
atrazine, 103, 487, 737, 1618
2,4-D, 1618
dalapon, 101, 103, 487
diquat, 103
diuron, 103, 487, 737
fenac, 101, 103, 737
kerosene, 108
monuron, 103
oil, 108, 737
paraquat, 101, 487, 491, 737, 1289
PCP, 103

Musa sapientum (banana), weed control, chemical—*cont.*
prometon, 103
prometryne, 103
simazine, 101, 103, 487, 737, 1618
TCA, 101, 487, 1618
cultural
hoeing, 106
plastic mulching,
Musanga smithii, 138
Muscari spp. (crop), 1556
Musci (mosses), 116
Mustard, field, white, see *Sinapis alba*
Mycelis spp., 1050
Myosotis spp., 1072
Myrica gale, 506
Myriophyllum spp.
control, chemical
ametryne, 1033
2,4-D, 167, 1033
diquat, 507, 1033, 1677
endothal, 507, 511, 1032, 1033, 1036
fenoprop, 507, 1033
paraquat, 1677
simazine, 1033
Myriophyllum brasiliense, 175, 1674
Myriophyllum exalbescens, 1032, 1314
Myriophyllum heterophyllum, 175, 510
Myriophyllum spicatum, 171 516, 517
Myrtus spp. (crop), 713

Najas spp., 175, 511
Najas flexilis, 1032
Najas gracillima, 1032
Najas guadalupensis
control, biological, 176, 177
chemical
acrolein, 172, 1664
2,4-D, 172
diquat, 172, 1664, 1675, 1677
endothal, 172, 173
endothal di-*N,N*-dimethylcocoamine, 1664
fenac, 174
fenoprop, 173, 1666
paraquat, 1664
Narcissus spp. (narcissus)
weed control,
recommendations, 1556
chemical,
amitrole, 983
AMS, 983
arsenicals, 983
atrazine, 711, 1576
chloroxuron, 982
chlorpropham, 982, 1576
4-CPA, 983
dalapon, 983
dinoseb, 711, 983, 1576
diquat, 981, 983, 1576
diuron, 711, 983, 1576
DNOC, 983
endothal, 1576
fenuron, 982
kerosene, 983
neburon, 982
oil, 983
paraquat, 981, 1576
PCP, 983, 1576
simazine, 711, 982, 983, 1576
sodium chlorate, 983
Narcissus spp. (narcissus), weed control, chemical—*cont.*
sulphuric acid, 983
2,4,5-T, 983
TCA, 983
Nardus stricta, 409, 410, 1227, 1552
Nasella trichotoma
control, chemical, 1040, 1325
description, 945
legislation, 1040, 1041, 1326
Nasturtium officinale, 1031
Nelumbo lutea, 173
Neptunia amplexicaulis, 799
Nicandra physaloides, 1506
Nicotiana tabacum, (tobacco)
host to *Orobanche*, 235
weed control,
recommendations, 1483
chemical,
allyl alcohol, 936
benzoic acid, 3,4,5-tri-iodo-, 1410
carbamate, propyl-di-*n*-propyl thiol-, 1541
carbamate, 2,3,6-trichlorobenzyl di-isopropyl dithio-, 1864
chloramben, 1540
2,4-D, 403
2,5-D, 1410
3,4-D, 1410
DCU, 403
dichlobenil, 1541
diphenamid, 937, 1540, 1541
DMPA, 1540
EPTC, 1540, 1541
PEBC, 1540, 1541
phthalate, dimethyl 2,3,5,6-tetrachlorotere-, 1540
propham, 403
swep, 1541
2,3,5-TBA, 1410
2,3,6-TBA, 1410
2,4,5-TBA, 1410
TCA, 403
trifluralin, 1540
cultural, 1539
Nitella spp., 1666
Nuphar spp.
control, chemical
2,4-D, 175, 510
endothal, 167, 510, 1314
fenoprop, 167, 173, 175, 510, 761
fenuron-TCA, 167
MCPA, 175
2,4,5-T, 175
Nuphar advena, 510
Nymphaea spp., 175, 177, 510, 761, 1033
Nymphaea odorata, 510, 762
Nymphoides sp., 175
Nyssa sylvatica, 1020, 1639, 1641

Oat grass, see *Arrhenatherum elatius*
Oat grass, yellow, see *Trisetum flavescens*
Oats, see *Avena sativa*
Ochtocosmus africanus, 153
Okra, see *Hibiscus esculentus*
Olea europea, 734
Olive, see *Olea europaea*
Ongokea gore, 153
Onion, see *Allium cepa*
Onobrychis viciaefolia (sainfoin), 947
Onopordon acaulon, 893
Opuntia spp., 1332, 1705
Orange, see *Citrus sinensis*
Orchard grass, see *Dactylis glomerata*
Ornithogalum spp. (crop), 1255, 1556
Ornithogalum thyrsoides, 1721
Ornithopus sativus (serradella), 61, 428
Orobanche spp., 235, 534, 815, 816
Orobanche aegyptiaca, 235
Orobanche brassicae, 235
Orobanche cumana, 49, 672, 1531
Orobanche hederae, 234
Orobanche lutea, 1574
Orobanche minor, 1432, 1574
Orobanche ramosa, 235, 1531, 1574
Oryza sativa (rice)
desiccation, 903
effect NAA and MH on yield, 1513, 1514
weed control, 106
biological, 176, 177, 361
chemical, 2
aerial application, 1881
summary of work, Southern Weed Conf., 1895
atrazine, 101
biuret, 1195
carbamate, *t*-butyl di-*n*-propyl thiol-, 571
carbothiolate, ethyl-1-hexamethyleneimine, 361
chlorpropham, 102, 653
2,4-D, 653, 1515, 1516, 1517
di-allate, 102
diquat, 14
diuron, 101
EPTC, 102, 1492
fenoprop, 1189
MCPA, 1515
paraquat, 13
phthalate, dimethyl 2,3,5,6-tetrachlorotere-, 101
propanil, 35, 36, 360, 899, 902, 1190, 1191, 1192, 1194, 1225
swep, 1193, 1194
weed control, cultural, 1517
harrowing, 653
management, flooding, 653
plastic levees, 1519
wave shaped cultivation technique, 654
weeds of, Catania (Italy), 1741
Surinam, 1518
Oryza sativa, 35, 101, 102, 1067
Oscillatoria spp., 1033
Osmanthus spp. (crop), 457
Osmunda spp., 471
Oxalis spp., 92, 1111, 1725
Oxalis cernua, 1352
Oxalis corniculata, 1586
Oxalis corymbosa, 123
Oxalis latifolia, 810, 1077
Oxalis pes-caprae, 12
Oxalis stricta, 685
Oxydendrum spp., 1639, 1642, 1645
Oxydendrum arboreum, 204
Oxystima oxyphyllum, 153

Pachylobus deliciosa, 138
Pachyptera kerepe, 737

Paeonia spp. (crop)
weed control,
recommendations, 1556
chemical,
chloramben, 709
chlorpropham, 709
dichlobenil, 709
dimexan, 498
diphenamid, 709
diquat, 498
diuron, 711
DNOC, 498
oil, 498
PCP, 498
pentanamide, *N*-(3,4-dichlorophenyl)-2-methyl, 498
phthalate, dimethyl 2,3,5,6-tetrachlorotere-, 709
simazine, 77, 80, 709, 711
Paeonia brownii, 954
Palicourea barbiflora, 1350
Palicourea marcgravii, 1350
Pangola, see *Digitaria decumbens*
Panicum spp., 110, 443
Panicum atrosanguineum, 110
Panicum capillare, 55, 466, 641, 966
Panicum dichotomiflorum, 650, 661, 680, 683
Panicum fasciculatum, 885, 1192
Panicum laxum, 1333
Panicum maximum, 535, 944
Panicum miliiaceum, 285
Panicum nodosum, 114, 1626, 1868
Panicum obtusum, 35
Panicum purpurascens, 35
Panicum repens, 1275, 1611, 1677, 1823
Panicum zizanoides, 102
Papaver spp. (crop), 77, 711
Papaver spp., 618, 917
Papaver hybridum, 893
Papaver rhoeas
competition, 1729
control, chemical
atrazine, 1323
benzonitrile, 3,5 - di - iodo - 4 - hydroxy-, 1818
chloramben, 327
endothal, 41
MCPB, 1521
propham, 41
simazine, 1323
control, cultural
harrowing, 879
seeds, 802, 879
Parinarium kerstingii, 138
Parinarium tenuifolium, 138
Parkia bicolor, 138
Parsley, see *Petroselinum crispum*
Parsnip, see *Pastinaca sativa*
Paspalidium spp. (crop), 1615
Paspalum commersonii, 1280
Paspalum conjugatum
control, chemical
droplet size and herbicide efficiency, 1868
amitrole, 181, 295, 740, 1626
amitrole-T, 1626
atraton, 740
atrazine, 740
benzoic acid, 2-methoxy-3,6-dichloro-, 740
benzoic acid, 2-methoxy-3,5,6-trichloro-, 740
dalapon, 181, 295, 479, 740
Paspalum conjugatum, control, droplet size and herbicide efficiency —*cont.*
dichlobenil, 740
diuron, 479, 488
monuron, 488
neburon, 740
OMU + BiPC, 740
paraquat, 114, 1626
PCP, 488
prometon, 740
prometryne, 740
simazine, 488, 739, 740
TCA, 479
description, 1280
Malaya, distribution, 1280
Paspalum dilatatum, 930, 941, 1550, 1588, 1823
Paspalum distichum, 35, 360, 941
Paspalum fasciculatum, 100, 102, 103, 479
Paspalum lividum, 35
Paspalum urvillei, 1823
Passiflora foetida, 1614
Passion fruit, see *Passiflora edulis*
Pastinaca sativa (parsnip), 692, 968, 969, 1235
Pea, garden, see *Pisum sativum*
Peach, see *Prunus persica*
Peanut, see *Arachis hypogaea*
Pear, see *Pyrus communis*
Pecan nuts, see *Carya illinoensis*
Pennisetum clandestinum (crop), 1760
Pennisetum purpureum, 422, 944, 1512
Pennisetum purpureum, 1625
Pennisetum schimperi, 1619
Pennisetum typhoideum (bulrush millet), 34, 101
Pentaclethra macrophylla, 138
Pentaclethra nitroloba, 103, 737
Peppermint, see *Mentha piperita*
Peppers, see *Capsicum* spp.
Persea gratissima (avocados), 480, 1268, 1278
Petroselinum crispum (parsley)
weed control, chemical
ametryne, 434
chloramben, 437, 692
chlorpropham, 1247
diquat, 1247
fenuron, 1247
ipazine, 968
oil, 1247, 1560
paraquat, 1247
PCP, 1247
prometryne, 443, 1566
propazine, 968
sulphuric acid, 1247
Petunia spp. (crop), 451
Phacelia brachyloba, 954
Phalaris sp. (crop), 54
Phalaris spp., 1659
Phalaris arundinacea (crop), 428, 1615
Phalaris arundinacea, 188, 807, 1033, 1346
Phaseolus spp. (snap beans)
sap extracts and simazine breakdown, 1793
weed control, recommendations, 689
chemical
acetate, 2,4 - dinitro - 6 - (2 - propyl)-phenyl-, 37, 63
ametryne, 963
atraton, 705
Phaseolus spp. (snap beans), weed control, chemical—*cont.*
barban, 892, 1046
carbamate, ethyl di-oleyl thiol-, 37
carbamate, *n*-propyl di-*n*-propyl thiol-, 63
CDAA, 37, 435, 615, 1573
CDEC, 435, 615, 1563
chloramben, 433, 435, 960, 963
chlorpropham, 37, 433, 435
di-allate, 433, 1046
dichlobenil, 37, 63, 433, 435, 705
dinitrophenols, 615
dinoseb, 37, 63, 362, 435, 1573
diquat, 691
diphenamid, 37, 63, 65, 438, 963, 1232
diuron, 433
DMPA, 37
endothal, 37, 1235
EPTC, 9, 37, 433, 435, 705, 1522, 1573
fenac, 705
linuron, 433, 883, 1234
monolinuron, 362, 433
naptalam, 705
neburon, 362, 1573
norea, 63
OMU + BiPC, 693
paraquat, 691
PEBC, 37, 63, 705
phthalate, dimethyl 2,3,5,6-tetrachlorotere-, 37
prometryne, 37, 63, 1232
propazine, 705
simazine, 362
swep, 63
tri-allate, 433
triazine, 2-methoxy-4,6-bis-methoxypropylamino - 1,3, 5-, 573
trietazine, 37, 705
trimethyl sulphonium chloride, 37
cultural
asphalt mulch, 1563
Phaseolus aureus (mungbeans), 1203
Phaseolus lathyriodes, 14
Phaseolus lunatus (bean, lima)
weed control, chemical
atraton, 705
carbamate, *t*-butyl di-*n*-propyl thiol-, 571
carbothiolate, ethyl - 1 - hexa - methyleneimine, 1812
chloramben, 705
2,4-D, 705
dichlobenil, 705
2,6 - dichlorobenzamideoxime hydrochloride, 1812
diphenamid, 65, 438
DMPA, 705
EPTC, 705
fenac, 705
linuron, 1234
naptalam, 705
PCA, 835
PEBC, 705
propazine, 705
trietazine, 705
trifluralin, 960

Phaseolus multiflorus (bean, runner), 692, 1237
Phaseolus vulgaris (bean, kidney)
transport growth regulators, 558, 559
weed control, chemical
ametryne, 102
atraton, 101
atrazine, 101
barban, 660
CDAA, 660, 1573
chloramben, 660, 692
chlorpropham, 432
di-allate, 660
dichlobenil, 660, 965
dimexan, 321, 432
dinoseb, 102, 321, 432, 660, 1573
diquat, 321
diuron, 101
DNOC, 102
EPTC, 5, 660, 1572, 1573
ipazine, 965
linuron, 432, 698
monolinuron, 432
monuron, 698
neburon, 102, 1573
PCP, 102, 321
phthalate, dimethyl tetrachloro-tere-, 101
prometon, 102
prometryne, 698
simazine, 101, 965
tri-allate, 660
triazine, 2 - methylthio - 4 - isopropylamino - 6 - methyl - amino-1,3,5-, 698
trietazine, 102, 660
Philadelphus spp. (crop), 80, 454, 1272
Phleum pratense (crop), 416, 679, 885, 1547
Phleum pratense, 455, 807
Phlox spp. (phlox), 77, 711
Phoradendron poeppigii, 244
Phragmites spp., 1033, 1345, 1659
Phragmites communis
control, chemical
amitrole, 506, 1507
amitrole-T, 506
benzoics, 1025
dalapon, 506, 509, 769, 1507, 1665
TCA, 1665
Phyllanthus spp., 1538
Phyllostachys aurea, 1025
Physalis heterophylla, 197
Physocarpus spp. (crop), 1581
Phytolacca octandra, 1025
Picea spp. (spruce), 499, 741
Picea abies (Norway spruce)
weed control, chemical
atrazine, 497
calcium nitrite, 148
chloramben, 497, 498, 1581
chlorpropham, 80, 497, 498
2,4-D, 128, 148, 743
dalapon, 115
dimexan, 497
diquat, 497
diuron, 80, 498
DNOC, 1631
kerosene, 124
lime, 148
naptalam, 497
neburon, 80, 497
Picea abies (Norway spruce), weed control—*cont.*
oil, 498
OMU + BiPC, 80, 497, 498
PCP, 498
pentanamide, *N*-(3,4-dichlorophenyl)-2-methyl, 498
potassium chloride, 148
simazine, 80, 130, 497, 498, 1581
2,4,5-T, 115, 128, 148, 743
Picea abies, 129, 1345
Picea glauca (white spruce), 117, 1016, 1273, 1359, 1627
Picea omorika (crop), 459
Picea pungens (Colorado spruce)
weed control, chemical
oil, 498, 1273
propazine, 1016
simazine, 1016, 1359, 1627
Picea rubens (red spruce), 1273
Picea sitchensis (sitka spruce)
weed control, chemical
chlorpropham, 80, 498
2,4-D, 128, 743
dalapon, 115
dichlobenil, 115, 724
diuron, 80
neburon, 80
OMU + BiPC, 80
simazine, 80, 130
2,4,5-T, 128, 743
Pieris spp., 1050
Pieris spp., (crop), 457
Pieris echioides, 1343
Pineapple, see *Ananus comosus*
Pinus spp. (pine)
weed control, economics, 1636
chemical,
amitrole, 499
atrazine, 82
borate, 133
chloramben, 497, 498
chlorpropham, 80, 497, 741
dalapon, 115, 499
dimexan, 497
diquat, 497
diuron, 80
fenuron, 160
naptalam, 497
neburon, 80, 497
OMU + BiPC, 80, 497
simazine, 80, 82, 497
Pinus spp., 204, 1020, 1639, 1642, 1651
Pinus banksiana (jack pine), 1019, 1629, 1632
Pinus caribaea (slash pine), 156, 160, 737
Pinus contorta (shore pine), 130, 743
Pinus echinata, 134, 152
Pinus jeffreyi, 1304
Pinus laricio (crop), 497
Pinus mugo (Swiss mountain pine), 80, 459, 498
Pinus nigra (Austrian pine), 80, 497, 498, 724
Pinus palustris (crop), 160
Pinus ponderosa (Western yellow pine), 238, 1304, 1630
Pinus resinosa (Norway pine, red pine), 1018, 1293, 1628, 1629
Pinus strobus (white pine), 1293, 1628, 1632
Pinus sylvestris (Scots pine)
weed control, chemical
allyl alcohol, 1629
amitrole, 709
atrazine, 136, 709
chloramben, 498
chloropicrin, 1629
chlorpropham, 80, 498
2,4-D, 115, 128, 743
dichloropropene, 1629
diuron, 80, 498
DNOC, 1631
ethylene dibromide, 1629
kerosene, 124
neburon, 80
OMU + BiPC, 80, 498
propazine, 1016
simazine, 80, 120, 130, 498, 709, 1016, 1359, 1627
2,4,5-T, 128, 743
Pinus taeda (loblolly pine), 1022, 1294, 1296, 1634, 1635
Pinus taeda, 1644
Piptatenia africana, 138
Pistia stratiotes
control, chemical
2,4-D, 1672
diquat, 1664, 1672, 1675, 1677
MCPA, 1672
paraquat, 1289, 1677, 1826
Pisum sativum (pea)
competition, 1196
crop spacing, 1231
desiccation, 428, 1548
effect, growth-active substance, 1423
weed control, recommendations, 689, 958
chemical, 904
ametryne, 339, 364
amitrole, 339, 364
amitrole-T, 339
atraton, 1197
barban, 38, 656, 659, 1042, 1046, 1197, 1520
benzoic acid, 2,5-dichloro-3-nitro-, 38
benzonitrile, 3,5-di-iodo-4-hydroxy-, 1818
carbamate, *t* - butyl di - *n* - propyl thiol-, 571
CDEC, 657, 1197
chloralchloracetamide, 339
chloramben, 38, 339, 655, 692, 905, 1197
chloroxuron, 433
chlorpropham, 38, 339, 364, 432, 433, 655, 905, 1109, 1480
2,4-D, 3, 658, 1490
2,4-DB, 365, 658
dalapon, 7, 63, 364, 432
2,4-DEP, 339
di-allate, 38, 339, 656, 659, 887, 1046, 1480, 1481, 1520
dichlobenil, 339, 433, 657, 859, 964
dichlorobutyric acid, 364
dicryl, 339
dinoseb, 3, 38, 63, 322, 325, 364, 365, 366, 432, 657, 1197, 1480, 1481
diphenamid, 65, 438, 960, 1110

Pisum sativum (pea), weed control, chemical—*cont.*
diuron, 38, 339, 432, 433, 655, 905, 1197, 1480
DMPA, 63
DNOC, 3, 325, 366
EPTC, 38, 339, 656, 659, 1046
ether, 2,4-dichlorophenyl-4-nitrophenyl, 1109
fenac, 339
fenuron, 38, 432, 655, 905
ipazine, 966
linuron, 339, 432, 433, 655, 698, 883, 905, 1234
MCPA, 3, 365, 366, 658, 906, 1197, 1490
MCPB, 38, 339, 365, 366, 658, 906, 966
monolinuron, 339
monuron, 339, 698
naptalam, 339
neburon, 363 432, 655, 905
OMU + BiPC, 38, 655, 693, 1480
paraquat, 691
PCA, 835
PEBC, 339
pentanamide, *N*-(3,4-dichlorophenyl)-2-methyl, 432
phenol, 4,6-dinitro-2-isopropyl, 366
phthalate, dimethyl 2,3,5,6-tetrachlorotere-, 433
prometon, 1197
prometryne, 339, 655, 657, 698, 1197, 1566
propazine, 432, 964, 966, 1197
propanil, 339
propham, 3, 38, 364, 656, 1520
simazine, 7, 38, 363, 432, 433, 655, 956, 964
simetryne, 339, 698, 966
SMA, 966
solan, 63, 339, 657
triazine, 2-chloro-4-allyl-amino-6-isopropylamino-1,3,5-, 339
triazine, 2-chloro-4-ethylamino-6-(3-methoxypropylamino)-1,3,5-, 963
triazine, 2-methylthio-4-isopropylamino-6-methylamino-1,3,5-, 698
Pithecolobium ligustrinum, 944
Pithophora, spp., 511, 1673, 1674, 1677
Plantago spp., 1260
Plantago lanceolata, 423, 497, 538, 931, 1224
Plantago major
association with *Lolium perenne*, 1739
control, chemical, 87, 474, 931
host of virus yellows, 917
seeds, 802
Platanus spp. (crop), 724
Platanus spp., 1651
Pluchea sericea, 1024
Plum, see *Prunus domestica*
Poa spp. (crop), 87, 989
Poa spp., 100, 1346
Poa annua (crop), 986
Poa annua
control, chemical
allyl alcohol, 497
amitrole, 364
atrazine, 474, 497, 619, 1233
calcium cyanamide, 340
CDEC, 998, 1233, 1562
chloralchloracetamide, 383
chloramben, 692, 698, 1233
chloroxuron, 459
chlorpropham, 74, 364, 432, 619, 995, 998
2,4-D, 998
dalapon, 364, 383
2,4-DEP, 1233
2,4-DES, 998, 1000
di-allate, 383
dichlobenil, 432
dichlorobutyric acid, 364
dinoseb, 74, 362, 383, 1000
diquat, 498, 981, 991
diuron, 80, 432, 474, 498, 619
DMPA, 1233
DNOC, 383, 498, 1631
endothal, 41
EPTC, 5, 998, 1233
fenuron, 432
ipazine, 1233
linuron, 432, 459, 698
MCPA, 337
monolinuron, 362, 383, 399, 459, 698
neburon, 80, 362, 474, 497, 998
oil, 498, 698
OMU + BiPC, 383, 698
paraquat, 498, 981, 991
PCA, 378
PCP, 498
pentanamide, *N*-(3,4-dichlorophenyl)-2-methyl, 432, 498, 1233
prometryne, 443, 619, 698
propazine, 432, 1233, 1567
propham, 41, 364, 383
simazine, 80, 340, 362, 474, 497, 619, 995, 1233
SMA, 93
solan, 1247
swep, 5
2,3,6-TBA, 337
TCA, 364, 399
Poa bulbosa, 232
Poa palustris, 1547
Poa pratensis (blue grass)
desiccation, 428
weed control, chemical
aniline, *N,N*-di-(*n*-propyl-2,6-dinitro-, 716, 717
arsenicals, 460, 461, 462, 715, 716, 717, 718, 719, 987, 1225, 1259
cacodylic acid, 681
chlordane, 460, 715, 716, 717, 718, 719, 723, 987, 1225
chlorpropham, 1223
2,4-D, 461, 679, 1547
Dacthal, 460, 461, 715, 716, 717, 718, 719, 987, 1225
dalapon, 681
2,4-DB, 679
dinoseb, 1547
diphenamid, 987
diphenatrile, 713, 717
dipropalin, 987
diquat, 986
Poa pratensis (blue grass), weed control—*cont.*
DMPA, 460, 461, 715, 716, 717, 718, 719, 720, 987, 1225
DNOC, 1547
endothal, 55
fenac, 55
fenoprop, 461
MCPA, 1547
neburon, 55, 986
phthalate, dimethyl 2,3,5,6-tetrachlorotere-, 460, 461, 715, 716, 717, 718, 719, 987, 1225
polychlorodicyclopentadiene isomers, 987
propham, 55, 1223
2,4,5-T, 1547
2,3,6-TBA, 55
tetramethyl thiuram disulphide, 1225
trifluralin, 987
Poa pratensis, 1216, 1227, 1273
Poa secunda (crop), 1330
Poa trivialis, 424, 425
Podocarpus spp. (crop), 82
Podocarpus macrophylla (crop), 1582
Polygonum spp.
competition, 1353
control, chemical
ametryne, 644, 911
atrazine, 644, 1508
calcium cyanamide, 185
CDAA, 1241
CDAA-T, 973, 1241
chloramben, 328, 329, 685
acetate, 2,4-dinitro-6-(2-propyl)-phenyl-, 46
benzoic acid, 2-methoxy-3,6-dichloro-, 191, 329, 334, 335
benzoic acid, 3,5,6-trichloro-, 644
benzoic acid, methyldichloro-, 644
benzoic acid, trichloro-, 335
chloropicrin, 185
chlorpropham, 364, 973, 1241
2,4-D, 679
2,4-DB, 191, 679
2,4-DEP, 644
di-allate, 328
dichlobenil, 46
dichlorprop, 191
dinoseb, 325, 364, 911
DNOC, 675
endothal, 173, 510, 925
EPTC, 664
fenoprop, 173
linuron, 644, 883
MCPA, 191, 334, 335, 675
metham, 185
methyl bromide, 185
OMU + BiPC, 377
PCA, 377, 378
PEBC, 664, 925
phthalate, dimethyl 2,3,5,6-tetrachlorotere-, 388
propargyl bromide, 185
propanil, 35, 46
propham, 364, 925
simazine, 644, 1508
solan, 63
swep, 46, 63
2,4,5-T, 335
2,3,6-TBA, 191, 644

Polygonum spp., control—*cont.*
TCA, 911
triazine, 2-methylthio-4-methylamino - 6 - isopropylamino - 1,3,5-triazine, 932
Finland, weed of cereals, 1072
Sweden, distribution, 1353
Polygonum amphibium, 191, 329
Polygonum aviculare
botany, 1755
chemistry, 1755
competition, 1068
control, recommendations, 1260
control, chemical
ametryne, 931
barban, 627
benzoic acid, 2-methoxy-3,6-dichloro-, 330, 333, 334
benzoic acid, 2-methoxy-3,5,6-trichloro-, 330
bipyridyls, 498
calcium cyanamide, 337
CDEC, 964
chloramben, 692, 964
chlorpropham, 964
2,4-DB, 330, 894
di-allate, 663
dichlobenil, 340
dichlorprop, 330, 333, 336
diuron, 911
endothal, 41, 926
EPTC, 663
ether, 2,4 - dichlorophenyl - 4 - nitrophenyl, 1109
linuron, 911
MCPA, 333, 334, 337, 894
MCPB, 1521
mecoprop, 894
PCA, 662
PEBC, 663
prometryne, 330
propazine, 1567
propham, 41, 663
simazine, 80, 964, 1576
simetryne, 931
SMA, 894
2,3,6-TBA, 337, 894
tri-allate, 663
triazine, 2-methylthio-4-methylamino - 6 - isopropylamino - 1,3,5-, 931
control, cultural, 893
seeds, 618
taxonomy, 1078
Polygonum convolvulus
control, chemical
atrazine, 898, 907
barban, 525
benzoic acid, 2-methoxy-3,6-dichloro-, 333, 334, 615
carbamate, *n*-propyl di-*n*-propyl thiol-, 63
CDEC, 964
chloramben, 328, 964
chlorpropham, 964
chloralchloracetamide, 380
2,4-D, 1056, 1177
dalapon, 7
di-allate, 380
dichlobenil, 624
dichlorprop, 333, 336
dinoseb, 32, 63, 1524
diphenamid, 63
DNOC, 675
endothal, 926
Polygonum convolvulus, control—*cont.*
EPTC, 63
MCPA, 7, 333, 334, 525, 675, 1056
MCPB, 7, 1521
naptalam, 328
norea, 63
PCA, 922
PEBC, 63
prometryne, 63, 443, 1568
propazine, 328, 1567
simazine, 80, 432, 907, 964, 1524
2,4,5-T, 1056
TCA, 380
tri-allate, 380
control, cultural
harrowing, 879
roots, chloroxuron uptake, 829
seed, cleaning from beet seed, 190
Polygonum cuspidatum, 1025
Polygonum hydropiper, 438, 703, 1246, 1248
Polygonum lapathifolium
competition, 1068
control, chemical
barban, 627
benzoic acid, 2-methoxy-3,6-dichloro-, 202, 330, 334
benzoic acid, 2-methoxy-3,5,6-trichloro-, 330
benzonitrile, 3,5 - di - iodo - 4 - hydroxy-, 1818
2,4-DB, 330
dichlorprop, 329, 330
endothal, 41
fenoprop, 329
MCPA, 334
mecoprop, 329
phthalate, dimethyl 2,3,5,6-tetrachlorotere-, 432
prometryne, 330, 443
propham, 41
Polygonum nodosum, 675
Polygonum pensylvanicum, 510
Polygonum persicaria,
competition, 618, 1068
control, chemical
acetic acid, 2-benzothiazyl, 1116
ametryne, 931, 966
amitrole, 418
benzoic acid, 2-methoxy-3,6-dichloro-, 330, 333, 334
benzoic acid, 2-methoxy-3,5,6-trichloro-, 330
calcium cyanamide, 348
2,4-D, 322
2,4-DB, 322, 330
dalapon, 7
dichlorprop, 322, 330, 333, 336
dicryl, 340
dinoseb, 322, 340
endothal, 41, 1235
ether, 2,4 - dichlorophenyl - 4 - nitrophenyl, 1109
ipazine, 966
MCPA, 7, 322, 333, 334, 337
MCPB, 7, 1521
mecoprop, 322, 324
prometryne, 330, 1568
propazine, 966
propham, 41
simazine, 966
simetryne, 931, 966
SMA, 884
Polygonum persicaria, control—*cont.*
solan, 1235
2,3,6-TBA, 337
triazine, 2-methylthio, 4-methylamino - 6 - isopropylamino - 1,3,5-, 931
Polygonum scabrum, 526, 1048
Polygonum tomentosum, 802
Pontederia spp., 761
Pontederia cordata, 167
Populus spp. (poplar)
auxins, effect foliar applications, 1405
host to *Viscum album*, 264
sucker control, 116
weed control, 80, 136, 150, 475, 500
Populus spp., 502, 504, 1178, 1642, 1646
Populus deltoides, 744
Populus tremula, 1345, 1779
Populus tremuloides, 253
Portulaca spp., 5, 1725
Portulaca oleracea
control, chemical
ametryne, 963, 1538
atrazine, 447, 668, 706
carbamate, ethyl ethyl *n*-butyl thiol-, 885
carbothiolate, ethyl - 1 - hexa - methyleneimine-, 570
CDAA, 695, 703, 977, 1238, 1241, 1246
CDAA-T, 703, 972, 977, 1238, 1241
CDEC, 67, 71, 695, 1246
chloramben, 447, 963, 977
chloroxuron, 1538
chlorpropham, 972, 977, 1238, 1241, 1538
2,4-D, 102, 773
2,4-DB, 773, 1048
2,4-DEP, 725
dichlobenil, 972, 977
dinoben, 447
dinoseb, 102, 1207
diphenamid, 725, 963, 1538
diuron, 668, 972, 1538
DMPA, 1246
EPTC, 706, 885, 1206
ethyl xanthogen disulphide, 972
fenoprop, 102
fenuron, 1538
ipazine, 1538
linuron, 725, 883, 963
MCPA, 102, 773, 1048
MCPB, 1538
mecoprop, 102, 773
monuron, 668, 706, 1207, 1538
neburon, 1538
OMU, 1538
PEBC, 725, 885, 977, 1206
pentanamide, *N*-(3,4-dichlorophenyl)-2-methyl, 1538
phthalate, dimethyl 2,3,5,6-tetrachlorotere-, 1246, 1538
prometon, 668
prometryne, 963, 1538
propazine, 725
simazine, 668, 706
solan, 977, 1538
2,4,5-T, 102
2,3,6-TBA, 102, 1048
triazine, 2 - chloro - 4 - ethyl - amino - 6 - (3 - methoxy - propylamino)-1,3,5-, 963

Portulaca oleracea, control—*cont.*
trietazine, 447, 1538
trifluralin, 908
poisoning livestock, 799
Potamogeton spp.
control, chemical, 167, 1033, 1035, 1314, 1677
cultural, plastic mulch, 1679
Potamogeton americanus, 511
Potamogeton amplifolius, 167, 511, 516, 761
Potamogeton crispus, 511, 515, 759, 1032
Potamogeton diversifolius, 174, 511
Potamogeton filiformis, 511
Potamogeton foliosus, 167, 1032
Potamogeton illinoensis, 167, 176, 177
Potamogeton natans, 167, 507, 510, 511, 761
Potamogeton nodosus, 174, 1666
Potamogeton oaksianus, 510
Potamogeton ochreatus, 1030
Potamogeton pectinatus
control, chemical
diquat, 507, 1032
endothal, 167, 173, 511, 1032
fenac, 174
fenoprop, 167
xylol, 1031
Potamogeton pusillus, 173, 511, 1666
Potamogeton richardsonii, 167
Potamogeton robinsii, 510
Potamogeton schweinfurthii, 1678
Potamogeton zosteriformis, 167, 511
Potato, see *Solanum tuberosum*
Potentilla spp. (crop), 80
Potentilla spp., 1549
Potentilla anserina, 733, 931, 1739
Potentilla erecta, 1227
Potentilla recta, 423, 868
Potentilla reptans, 100
Primula spp. (crop), 1255, 1580
Prosopis juliflora, 143, 1407, 1780, 1781
Protomegabarya stapfiana, 138
Prunella vulgaris, 87
Prunus spp. (crop), 80, 160, 1556, 1577
Prunus spp., 504, 747, 1639, 1646, 1651
Prunus armeniaca (apricot), 1008, 1404
Prunus avium (sweet cherry), 80
Prunus cerasifera (cherry plum), 80
Prunus cerasus (cherry), 1007, 1008, 1606
Prunus domestica (plum), 474, 1007
Prunus pensylvanica, 502
Prunus persica (peaches), 96
Prunus serotina, 502
Prunus spinosa, 129
Psathyrotes annua, 798
Pseudotsuga spp. (crop), 80, 115, 120, 497
Pseudotsuga menziesii (crop), 80, 500, 1233, 1630
Psychotria officinalis, 1350
Pteridium aquilinum
botany, 226
chromosomes, 1374
competition, 1757
control, review UK work, 1708
chemical
amitrole, 418, 499, 531, 790, 1060
Pteridium aquilinum, control, chemical—*cont.*
amitrole-T, 532, 533, 1340
benzoic acid, 2-methoxy-3,6-dichloro-, 533
benzoics, 1025
4-CPA, 531, 532, 533, 790, 1060, 1340
dalapon, 499, 790
dichlobenil, 321, 790
isocil, 279
MCPA, 531, 1060, 1340
sodium sesquicarbonate, 532
2,4,5-T, 1060
TCA, 499
management, sheep grazing, 1757
description, var. *esculentum*, 945
morphology and growth, 1372, 1373
Pueraria hirsuta, 196
Pueraria phaseoloides, 114, 295, 1626
Pueraria thunbergiana, 1294, 1333, 1715
Pumpkin, see *Cucurbita pepo*
Purshia tridentata, 1229
Pyrethrum, see *Chrysanthemum coccineum*
Pyrus communis (pears)
weed control, chemical
amitrole-T, 474
atrazine, 474
2,4-D, 477, 1096, 1097
dalapon, 474, 477
dichlobenil, 321, 1007
dinoseb, 477
diuron, 474, 477
DNOC, 477
fenac, 477
MCPA, 477
monuron, 477
simazine, 321, 474, 477, 1008, 1605
sodium dichlorobutyrate, 477
TCA, 474, 477
Pyrus communis, 129
Pyrus persica (peach), 1274

Quercus spp. (crop)
weed control, chemical
atrazine, 136
chlorpropham, 497
2,4-D, 131
dalapon, 115
diquat, 498
diuron, 498
fenuron-TCA, 1019
monuron-TCA, 1019
oil, 498
paraquat, 498
PCP, 498
simazine, 80, 498
2,4,5-T, 131
Quercus spp.
control, chemical
amitrole, 503
AMS, 1651
borate-TBA, 1646
2,4-D, 503, 504, 1345, 1642
fenuron, 204
fenuron-TCA, 502
2,4,5-T, 503, 504 750, 1020, 1345, 1642
2,3,6-TBA, 503
control, burning, 1634
Quercus alba
control, chemical
arsenicals, 161
benzoic acid, polychloro-, 134
2,4-D, 504, 1639
2,4,5-T, 152, 504, 1020, 1639, 1645
Quercus ellipsoidalis, 1165
Quercus falcata, 152, 154, 1644, 1648
Quercus incana, 159
Quercus laevis, 156, 159, 160, 747
Quercus marilandica
control, chemical
2,4-D, 154, 1648
dichlorprop, 154, 1638
fenoprop, 1638
fenuron, 750
2,4,5-T, 152, 154, 1638, 1640, 1641, 1788
Quercus prinus, 1645
Quercus rubra, 161, 1020, 1639, 1645
Quercus stellata
control, chemical
2,4-D, 54
dichlorprop, 1638
fenoprop, 1638
fenuron, 160, 747, 750
2,4,5-T, 152, 154, 1638, 1640, 1641, 1644
Quercus turbinella, 145, 1304, 1407
Quercus velutina, 504, 1641
Quince, see *Cydonia oblonga*

Radish, see *Raphanus sativus*
Ranunculus spp. (crop), 1576
Ranunculus spp., 41, 420, 1032, 1035, 1677
Ranunculus acris, 540
Ranunculus arvensis, 1521
Ranunculus circinatus, 507
Ranunculus ficaria, 1804
Ranunculus repens
control, chemical
ametryne, 931
amitrole, 477, 538
atrazine, 992
2,4-D, 463, 477, 1551
dalapon, 538, 733
diquat, 463, 991
diuron, 100
isocil, 536
MCPA, 463, 477
MH, 1562
paraquat, 463, 991
simazine, 100, 538, 992
simetryne, 931
triazine, 2-methylthio-4-methylamino - 6 - isopropylamino-1,3,5-, 931
Rape, see *Brassica* spp.
Raphanus raphanistrum
control, chemical
atrazine, 1323
benzonitrile, 3,5 - di - iodo - 4 - hydroxy-, 1818
chloramben, 328
2,4-DB, 947
MCPA, 1526
MCPB, 947
PCA, 328
prometryne, 443
propazine, 328, 1567
simazine, 1323, 1568
solan, 63

Raphanus sativus (radish)
effect growth regulators, 618
weed control, chemical
carbamate, *t*-butyl di-*n*-propyl thiol, 571
carbothiolate, ethyl - 1 - hexa - methyleneimine,- 570
chloramben, 692
diphenamid, 65, 438
Raphanus sativus, 60, 1105, 1323
Raspberry, see *Rubus idaeus*
Rhamnus sp., 142
Rhamnus frangula, 1345
Rhamnus palaestina, 555
Rhododendron spp. (azaleas, rhododendrons), 80, 457, 458, 1582
Rhus spp. (crop), 160
Rhus spp., 747, 1639, 1642, 1646, 1715
Rhus copallina, 503
Rhus diversiloba, 1304
Rhus radicans, 202, 731
Rhus toxicodendron, 1029, 1483, 1727
Rhus typhina, 502
Rhus vernix, 1727
Rhynchelytrum roseum, 97, 110
Ribes spp. (gooseberry)
weed control, chemical, 1266, 1268
atrazine, 992
bipyridyls, 463
dalapon, 463, 467
diquat, 991
diuron, 992
ether, 2,4 - dichlorophenyl - 4 - nitrophenyl, 1109
MCPA, 467
paraquat, 991
simazine, 467, 474, 992
weed control, cultural, 467
plastic mulching, 1005
Ribes spp. (currants), 454
Ribes alpinum, 80
Ribes aureum, 459
Ribes glutinosum, 1025
Ribes nigrum (blackcurrants)
weed control, chemical, 467
amitrole, 469
amitrole-T, 1261
atrazine, 463, 475, 729, 992, 1261
chlorpropham, 463
2,4-D, 463
2,4-DB, 463
dalapon, 94, 463, 464, 1261
2,4-DES, 463
dichlobenil, 1261
diquat, 991
diuron, 475, 992, 1261
fenuron, 463
MCPA, 463, 464
MCPB, 94, 463
paraquat, 463, 464, 991
simazine, 463, 464, 469, 475, 729, 992, 1261
weed control, cultural, 467
plastic mulching, 1005
Ribes rubrum (redcurrant), 475, 729, 1261
Ribes sanguineum (crop), 80, 459
Ribes sanguineum, 945
Rice, see *Oryza sativa*
Richardia scabra, 97, 1186, 1213, 1529
Ricinus communis, 885
Ricinus communis (castor bean), 673, 1108, 1820
Robinia spp. (crop), 80, 1876
Robinia pseudoacacia (crop), 80
Robinia pseudoacacia
control, chemical
amitrole, 503
benzoic acid, trichloro-, 1715
2,4-D, 129, 503, 1639
fenuron, 204
2,4,5-T, 129, 158, 503, 1639, 1646
2,3,6-TBA, 503
Romulea rosea, 1586
Rosa spp., 1027, 1229
Rosa spp. (rose)
defoliation, 454
weed control, recommendations, 1556
chemical
atrazine, 463
benzene, 1,2,4,5-tetrachloro-3-nitro, 454
chloramben, 709, 1577
chloroxuron, 1577
chlorpropham, 74, 454, 709, 985, 1577
2,4-DES, 985
dichlobenil, 709, 1272
diphenamid, 709
diphenatrile, 713
DMPA, 1257
ether, 2,4-dichlorophenyl-4-nitrophenyl, 1109
EPTC, 1257
fenuron, 985
neburon, 303
paraquat, 463
phthalate, dimethyl 2,3,5,6-tetrachlorotere-, 709
propham, 454
simazine, 74, 80, 454, 463, 709, 985, 1255, 1577
swep, 1257
trifluralin, 1257
Rosa canina (crop), 497
Rosa woodsii, 1304
Rottboellia exaltata, 479, 1688
Rubber, see *Hevea brasiliensis*
Rubus spp. (blackberry), 475, 1110, 1233, 1274, 1563
Rubus spp.
control, chemical, 752, 1025, 1346, 1480, 1646
description, 945
Rubus caesius, 1646
Rubus idaeus (raspberry)
weed control, chemical, 1268
amitrole-T, 1261
atrazine, 463, 474, 475, 619, 724, 992, 997, 1233, 1261, 1607
2,4-D, 463
dalapon, 93, 463, 475, 1261
2,4-DB, 463
2,4-DES, 93, 997
dichlobenil, 724, 997, 1261
dinoseb, 997, 1265
diquat, 93, 463, 991
diuron, 463, 474, 475, 724, 992, 997, 1233, 1265
fenuron, 93, 724, 997
MCPA, 463
monuron, 93, 724, 997, 1233
neburon, 474
oil, 93
paraquat, 463, 991
Rubus idaeus (raspberry), weed control—*cont.*
phthalate, dimethyl 2,3,5,6-tetrachlorotere-, 463
prometryne, 619, 724, 997
propazine, 463
propham, 93, 997
simazine, 93, 463, 474, 475, 619, 724, 992, 993, 997, 1261, 1607
solan, 993
TCA, 997, 1233
trietazine, 463, 993
weed control, cultural
plastic mulching, 1005
Rubus laciniatus, 1346
Rubus parviflorus, 1346
Rubus procerus, 1346
Rubus spectabilis, 1304, 1649
Rubus ursinus (boysenberry), 1005, 1233
Rudbeckia spp. (crop), 1580
Rumex spp., 60, 931, 1725
Rumex acetosa, 190
Rumex acetosella, 41, 89, 497, 802, 1224
Rumex crispus
control, chemical
benzoic acid, 2-methoxy-3,6-dichloro-, 1716
benzonitrile, 3,5 - di - iodo - 4 - hydroxy-, 1818
2,4-DB, 423
dichlorprop, 336
endothal, 41
fenoprop, 423
MCPB, 1521
propanil, 35
propham, 41
interaction with *Rumex obtusifolius*, 804
seeds, 802, 1224
Rumex obtusifolius
control, chemical, 336, 418, 964, 967, 1261
description, 945
interaction with *Rumex crispus*, 804
Ruppia spp., 1677
Rutabaga, see *Brassica napobrassica*
Rye, see *Secale cereale*
Ryegrass, see *Lolium* spp.
Ryegrass, annual, see *Lolium multiflorum*
Ryegrass, perennial, see *Lolium perenne*
Ryncho spora corniculata, 35

Sabal sp., 133
Saccharum officinarum (sugar)
desiccation, 1615
germination, 1754
Hawaii, weeds of, 1284, 1285
India, weeds of, 735
effects growth regulators, 485, 825
soil sterilisation, 1613
weed control, 105, 106
recommendations, 1286
chemical, 1268, 1283, 1613
acetamide, 2,3,6-trichlorophenyl-, 1287
acetonitrile, 2,3,6-trichlorophenyl-, 1287
amitrole, 1614
AMS, 1285

Saccharum officinarum (sugar), weed control, chemical—*cont.*
atraton, 1619
atrazine, 1284, 1619
benzoic acid, trichloro-, 1614
2,4-D, 104, 484, 485, 486, 1285, 1612, 1614, 1617
dalapon, 1285, 1615
dichlorprop, 1615
diquat, 1614, 1616, 1617
diuron, 483, 1284, 1285, 1288, 1614, 1617
EPTC, 1617
fenac, 102, 1287, 1614
fenoprop, 104, 1285, 1615, 1617
fenuron, 1615
isocil, 1615
linuron, 1615
MCPA, 485
monuron, 483, 1285, 1614, 1617
paraquat, 1289, 1615, 1616, 1617
PCP, 1284, 1285, 1617
prometon, 1619
propanol, 2,3,6 - trichlorobenzyloxy-, 1287
simazine, 483, 736, 1285, 1287, 1288, 1619
2,4,5-T, 485, 486, 1285, 1614
2,3,6-TBA, 102
TCA, 104, 1284
cultural, 1613
Saccharum robustum, 1754
Saccharum spontaneum, 182, 895, 1625, 1754
Saccoglottis gabonensis, 138
Sagina spp. (crop), 1580
Sagittaria latifolia, 1032, 1677, 1679
Sagittaria sagittifolia, 507
Saintpaulia spp. (African violet), 1164
Salix spp. (willow), 80, 100, 481, 733, 875
Salix spp.
control, chemical
AMS, 497, 1651
benzoic acid, trichloro-, 1715
borate-TBA, 1646
2,4-D, 128, 1345, 1652
fenuron-TCA, 502
2,4,5-T, 128, 497, 1345
Salix geveriana, 1178
Salix lasiolepis, 188
Salix reticulata, 1306
Salpichroa rhomboidea, 1025
Sambucus nigra, 945
Saponaria officinalis, 279, 1823
Saponaria vaccaria, 784, 1048
Sarothamnus scoparius, 128, 324
Sassafras sp., 1639, 1642, 1646, 1651, 1715
Sassafras albidum, 204, 502, 503
Saturei caliminthe, 1025
Scandix pecten-veneris, 41
Scleria spp., 1626
Scirpus spp. (crop), 1577
Scirpus spp., 35, 173, 653, 899, 1314
Scirpus acutus, 1032
Scirpus eriophorum, 1677
Scirpus lacustris, 509
Scirpus maritimus, 1507
Scirpus validus, 167
Scleria multifoliata, 1868
Sclerocarpus coffeaecola, 1207
Scorzonera spp. (scorzonera), 432, 437, 446
Scottelia chevalieri, 138
Secale cereale (rye)
competition, 805
weed association, Yugoslavia, 217
weed control, chemical
acetic acid, 2-methoxy-3,6-dichloro-, 1108
barban, 338
carbothiolate, ethyl - 1 - hexa - methyleneimine-, 570
dinoseb, 1487
diphenamid, 1110
DNOC, 26, 1487
MCPA, 338
mecoprop, 323, 337, 628
OMU, 1496
simazine, 1496
2,3,6-TBA, 323, 338
Secale cereale, 190
Sedum spp. (crop), 1580
Sedum acre, 87
Senecio spp., 376, 432
Senecio aquaticus, 1222
Senecio glabellus, 1722
Senecio jacobea, 324, 945, 1818
Senecio mikanoides var. *angulatus*, 1025
Senecio pterophorus, 1338
Senecio vulgaris
control, chemical
atrazine, 992, 1233
calcium cyanamide, 1567
CDEC, 1233
chloramben, 437, 956, 1233
chloroxuron, 956
chlorpropham, 74, 364, 404, 432, 956, 1000, 1237, 1562, 1567
2,4-DEP, 1233
dichlorprop, 336
dinoseb, 74, 364
diquat, 981, 991
diuron, 93, 1562
DMPA, 1233
DNOC, 1567
EPTC, 1233
ipazine, 965, 1233
linuron, 914
monolinuron, 914
monuron, 93
oil, 498
OMU + BiPC, 340, 432
paraquat, 981, 991
PCA, 378
pentanamide, *N*-(3,4-dichlorophenyl)-2-methyl, 1233
prometryne, 443, 956, 1568
propazine, 404, 965
propham, 364
simazine, 80, 481, 742, 992, 1233, 1562
solan, 956, 1247
sulphuric acid, 432
triazine, 2-methylthio-4-methylamino - 6 - isopropylamino - 1,3,5-, 932
host of virus yellows, 917
response to gamma radiation, 1766
Sesamum indicum (sesame), 101, 677, 1203
Sesbania spp., 900
Sesbania exaltata (sesbania), 570
Sesbania exaltata, 35, 1452, 1716
Setaria spp.
control, chemical
atrazine, 358, 645, 1828
barban, 402
benzoic acid, 2-methoxy-3,6-dichloro-, 645
CDAA, 39, 961, 1828
CDAA + trichlorobenzyl chloride, 358
chloramben, 39, 367, 369, 685, 913, 961
2,4-D, 350, 402, 645
dalapon, 350, 401, 402
2,4-DEP, 725
di-allate, 1043
dinoseb, 32, 39
diphenamid, 65, 438, 725, 961
endothal dioleylamine, 961
EPTC, 913
linuron, 367, 645, 725, 961
MCPA, 402
PEBC, 725
propazine, 358, 725
simazine, 1828
solan, 1272
tri-allate, 1043
triazine, 2-chloro-4-ethylamino-6-(3-methoxypropylamino)-1,3,5-, 961
triazine, 2,4 - bis(3 - methoxypropylamino)-1,3,5-, 367, 645
trifluralin, 908
Setaria barbata, 101
Setaria faberi, 883, 1483, 1511
Setaria glauca, 545, 803, 883, 1752
Setaria italica (millet, foxtail), 570, 1196
Setaria italica, 885, 963
Setaria lutescens
competition, 800
control, chemical
barban, 402
carbamate, *t*-butyl di-*n*-propyl thiol-, 571
CDEC, 975
chloramben, 401, 975
2,4-D, 401, 402
dalapon, 401, 402
di-allate, 401
dichlobenil, 975
dicryl, 975
dinoseb, 371, 975
diphenatrile, 713
DMPA, 371
EPTC, 1522
MCPA, 401, 402
naptalam, 975
phthalate, dimethyl 2,3,5,6-tetrachlorotere-, 975
simazine, 975
solan, 975
Setaria poiretiana, 479
Setaria sphacelata (crop), 54
Setaria splendida, 54
Setaria verticillata, 1011
Setaria viridis
control, chemical
atrazine, 643, 891, 1045, 1235
barban, 402, 659, 660
carbamate, *t*-butyl di-*n*-propyl thiol-, 571
CDAA, 660, 891
CDAA-T, 643, 1045, 1235
CDEC, 891

Setaria viridis, control—*cont.*
chloramben, 63, 401, 660, 1200
2,4-D, 401, 402
dalapon, 401, 402
di-allate, 401, 621, 659, 660
dichlobenil, 660
dinoseb, 660
diphenatrile, 713
EPTC, 643, 659, 660, 1045, 1046, 1235, 1522
linuron, 883
MCPA, 401, 402
PEBC, 660
simazine, 891
solan, 63
swep, 63
tri-allate, 621, 660
triazine, 2,4 - bis(3 - methoxy - propylamino) - 6 - methylthio-1,3,5-, 1045
trietazine, 659, 660
Sherardia arvensis, 1224
Sida spp., 944
Sida acuta, 102
Sida glomerata, 102
Sida rhombifolia, 1025
Sida spinosa, 1111
Silene alba, 423, 426
Silene noctiflora, 775, 1048
Silybum marianum, 945
Sinapis alba (mustard)
effect growth regulator, 618
weed control, 65, 438, 570, 1046, 1818
Sinapis alba, 41, 227, 543, 1196, 1526
Sinapis arvensis
competition, 544, 1196
control, chemical
ametryne, 931
atrazine, 910, 1323
chloralchloracetamide, 1523
dalapon, 7, 1523
dichlobenil, 624
dicryl, 969, 970
dinoseb, 1524
endothal, 1524
linuron, 914
MCPA, 7
MCPB, 7, 1521
monolinuron, 914
OMU + BiPC, 41, 377, 1523
PCA, 377
PEBC, 1523
propazine, 970
propham, 41, 1523
simazine, 910, 1323, 1524
simetryne, 931
solan, 969, 970
TCA, 1523
triazine, 2-methylthio-4-methylamino - 6 - isopropylamino-1,3,5-, 931, 932
trietazine, 910
control, cultural
harrowing, 879
seeds, 802, 879
Sisymbrium irio, 60
Sitanion hystrix (crop), 1330
Sium erectum, 170
Smilax spp., 152, 750, 1646
Smilax rotundifolia, 504
Solanum spp., 5, 376, 1111, 1522
Solanum auriculatum, 1025
Solanum carolinense
botany, 553, 808
Solanum carolinense—cont.
control, chemical, 197, 1111, 1210
seeds, 544
Solanum elaeagnifolium, 202
Solanum melongena esculentum (egg plant), 101, 570, 1420, 1798
Solanum nigrum
and potato-root eelworm, 1073
cleaning seeds from beet seeds, 190
control, chemical
ametryne, 966
amitrole, 432
atrazine, 432
calcium cyanamide, 1567
chlorpropham, 432
DNOC, 1567
endothal, 41
ipazine, 966
monuron, 432
OMU + BiPC, 432
PEBC, 884, 925
prometryne, 443
propazine, 966
propham, 41
simazine, 80
simetryne, 966
solan, 1272
nitrogen requirements, 547
Solanum rostratum, 1111
Solanum subinerme, 1333
Solanum tuberosum (potato)
desiccation, 47, 393, 394, 395, 671, 1209, 1528
effect growth regulators, 618
nutrients, 1162
residues, herbicides, determination in, 1841, 1851
sprout inhibition, 1479
Sweden, weeds of, 1527
translocation studies, 566
weed control, recommendations, 689, 1485
chemical, 384, 1488
acetate, 2,4 - dinitro - 6 -(2 - propyl)-phenyl-, 46
ametryne, 339, 670, 911
amitrole, 339, 387, 1208
amitrole-T, 339
atraton, 909
atrazine, 46, 391, 619, 668, 910, 913, 1208, 1235, 1340
barban, 339
calcium cyanamide, 383, 912, 1524
carbamate, ethyl ethyl-*n*-butyl thiol-, 390
carbamate, *n*-propyl di-*n*-propyl thiol-, 390
CDAA, 389, 615
CDAA-T, 46, 389
CDEC, 389
chloralchloracetamide, 339
chloramben, 46, 339, 390, 391, 913, 1235, 1340
2 - chloro - 4 - allylamino - 6 - isopropylamino - 1,3,5 - triazine, 339
chlorpropham, 339, 619
2,4-D, 389, 669, 1162, 1208
dalapon, 46, 93, 383, 387, 389, 610, 615, 667, 724, 1208
2,4-DEP, 46, 339, 388, 389, 390, 391
2,4-DES, 667
di-allate, 339, 383, 1046, 1235
Solanum tuberosum (potato), weed control, chemical—*cont.*
dichlobenil, 339, 388, 859
dicryl, 339
dinitrophenols, 615
dinoseb, 46, 93, 322, 383, 388, 389, 610, 667, 670, 724, 911, 914, 1207, 1235, 1340, 1524, 1841, 1851
diphenamid, 65, 909, 915
diuron, 46, 339, 383, 391, 619, 668, 911
DMPA, 389
DNOC, 46, 383, 916, 1208, 1481, 1525
EPTC, 5, 9, 46, 339, 388, 390, 391, 392, 913, 1207
fenac, 339, 387
fenuron, 667
ipazine, 670, 910, 1235
linuron, 46, 339, 383, 883, 909, 911, 914, 1254
MCPA, 46, 339, 1526
MCPB, 46, 339
mecoprop, 386
monolinuron, 339, 383, 388, 914, 1524
monuron, 668, 1207
naptalam, 339, 389, 390
neburon, 46
norea, 1812
OMU + BiPC, 909
paraquat, 911
PCA, 835
PEBC, 46, 339, 390
phthalate, dimethyl 2,3,5,6-tetrachlorotere-, 388, 390
prometon, 668
prometryne, 339, 619, 670, 724, 911, 1340
propanil, 46, 339, 383
propazine, 1340
propham, 387, 667, 1046
simazine, 46, 383, 619, 667, 668, 909, 910, 911, 914, 1208, 1340, 1524, 1526
simetryne, 339, 909
solan, 46, 339, 388, 670
swep, 5, 46
2,4,5-T, 1208
TCA, 339, 387, 610, 911, 1208, 1235, 1340
tri-allate, 1046
triazole amides, 909, 1340
trietazine, 46, 388, 667, 670, 724, 909, 910, 911, 1235
urea, *N* - (*p* - chlorophenyl) - *O*-*N*,′*N*′-trimethyliso-, 1812
control, cultural, 667
ridging, 322
rotary inter-row, 385
Solidago spp. (golden rod), 1580
Solidago spp., 686
Solidago gigantea, 279
Solidago graminifolia, 1823
Sonchus spp., 7, 441, 1050, 1273, 1508
Sonchus arvensis
competition, 1353
control, chemical
amitrole-T, 770
benzoic acid, 2-methoxy-3,6-dichloro-, 770, 1053
benzoic acid, polychloro-, 770
chloramben, 770
2,4-D, 770, 1178

Sonchus arvensis, control—*cont.*
2,4-DB, 1053
DMPA, 37
fenac, 348, 770
MCPA, 906, 1178
MCPB, 906, 1053
2,3,6-TBA, 770
control, cultural, 1178
distribution, Sweden, 1353
Finland, weed of spring cereals, 1072
nitrogen requirements, 547
Sonchus oleraceus, 443
Sophora secundiflora, 1706
Sorbus aucuparia (crop), 80, 136
Sorghastrum nutans, 1823
Sorghum spp., 1567
Sorghum almum (crop), 942
Sorghum almum, 799, 807
Sorghum halepense
control, summary work, Southern Weed Conf., 1895
chemical, 1613
acetonitrile, 2,3,6 - trichlorophenyl-, 1287
amitrole, 524, 1537
amitrole-T, 524
arsenicals, 1682
atrazine, 1276
benzoic acid, 2-methoxy-3,6-dichloro-, 524
borate + chlorate, 1682
bromacil, 1823
carbamate, *t* - butyl di - *n* - propyl thiol-, 571
carbamate, *n* - propyl di - *n* - propyl thiol-, 1199
2,4-D, 524
dalapon, 520, 521, 522, 944, 1199, 1329, 1537, 1662, 1682
2,4-DB, 524
diquat, 1274
diuron, 1276
EPTC, 1206, 1492
erbon, 1682
fenac, 1287
fenuron, 1276
hexachloroacetone, 1682
isocil, 279, 1276, 1682, 1824
monuron, 1682
paraquat, 1274
PEBC, 1199, 1206
prometon, 1682, 1717
propanil, 35, 360
propanol, 2,3,6-trichlorobenzyloxy-, 1287, 1682
simazine, 1287
sodium chlorate, 1682
TCA, 1682
trifluralin, 1111
control, cultural, 104, 1613
flaming, 1511
extract not affecting simazine, 1793
Sorghum sudanense, 571
Sorghum vulgare (kaffir corn)
depth of sowing and *Striga* infestation, 1376
resistance to atrazine and propazine, 258
sap extract, simazine breakdown, 1793
weed control
aerial application, 1881
sowing depth and *Striga* infestation, 1376
Sorghum vulgare (kaffir corn), weed control—*cont.*
summary of research, Southern Weed Conf., 1895
chemical,
acetic acid, 2-methoxy-3,6-dichlorophenyl-, 1108
atrazine, 358, 359, 651, 1512
benzoic acid, 2-methoxy-3,6-dichloro-, 1716
carbamate, *t* - butyl di - *n* - propyl thiol-, 571
CDAA, 651
CDAA-T, 3, 358, 650, 651
chloramben, 650
2,4-D, 652, 1512
dichlobenil, 650
dinoseb, 650
diphenamid, 438, 650
DMPA, 650
endothal, 650
fenoprop, 885
linuron, 650
neburon, 650
PCA, 835
PCP, 650
phenol, 6-nitro-2,4-dichloro-, 650
phthalate, dimethyl 2,3,5,6-tetrachlorotere-, 650
propazine, 33, 358, 650, 651
simazine, 944, 1512
triazine, 2-chloro-4-isopropylamino - 6 - methylamino - 1,3,5-, 650
triazines, 1860
cultural, 13
Sorghum vulgare sudanense (Sudan grass), 1108
Sparaxis spp. (crop), 1556
Sparganium spp., 511, 1659
Sparganium erectum, 230, 507
Spartina pectinata, 167
Spergula spp., 80, 335
Spergula arvensis
competition, 1353
control, chemical
ametryne, 670, 931
calcium cyanamide, 185
benzoic acid, 2-methoxy-3,6-dichloro-, 334, 636, 1040
benzoic acid, 2-methoxy-3,5,6-trichloro-, 636
CDEC, 657, 964
chloramben, 699, 964, 1233
chloropicrin, 185
chlorpropham, 364, 699, 964
2,4-D, 636
dichlobenil, 340, 657
dichlorprop, 336
dicryl, 699, 969, 970
dinoseb, 325, 364, 657
diquat, 7, 25, 615
endothal, 41
ipazine, 670, 699, 1233
MCPA, 7, 254, 334, 636
mecoprop, 7, 25, 32, 1048
metham, 185
methyl bromide, 185
neburon, 7
OMU + BiPC, 340
paraquat, 25
PCA, 662
pentanamide, *N*-(3,4-dichlorophenyl) - 2 - methyl, 649
Spergula arvensis, control—*cont.*
prometryne, 443, 657, 670, 1568
propargyl bromide, 185
propazine, 699, 970, 1233
propham, 41, 364
SMA, 894
solan, 63, 657, 670, 969, 970
swep, 63
2,4,5-T, 7, 636
2,3,6-TBA, 7, 25, 636
triazine, 2-methylthio-4-methylamino - 6 - isopropylamino-1,3,5-, 931
triazines, chloro, 7
trietazine, 657, 670
uracil, 279
Finland, weed of cereals, 1072
Sweden, distribution, 1353
Spergularia spp., 56, 998
Sphaeranthus spp., 901
Spigelia anthelmis, 1351
Spinacia oleracea (spinach)
crop spacing, 1231
weed control,
recommendations, 689
chemical, 8
carbamate, *t*-butyl di-*n*-propyl thiol-, 571
carbothiolate, ethyl-1-hexamethyleneimine,- 570
CDAA, 695, 1236
CDEC, 64, 690, 694, 695, 1236, 1563
chloramben, 436, 437, 692
chlorpropham, 64, 432, 1236
dichlobenil, 436
diphenamid, 438, 1236
diphenatrile, 1236
diquat, 691
DMPA, 1236
EPTC, 436
linuron, 1234
monolinuron, 432
OMU, 433
OMU + BiPC, 432, 693
paraquat, 691
PCA, 835
PEBC, 432, 1236
phthalate, dimethyl 2,3,5,6-tetrachlorotere-, 436, 1236
prometryne, 432
propazine, 433
solan, 695
triazine, 2-methoxy-4,6-bis(3-methoxypropylamino) - 1,3,5-, 433, 573
trietazine, 432
trifluralin, 1236
urea, 1-chloro-2-norbornyl-3,3-dimethyl-, 436
cultural,
asphalt mulch, 1563
Spiraea (crop), 76, 80, 1272, 1581
Spirodela spp., 511, 1033, 1677
Spirodela oligorrhiza, 1030
Spirodela polyrhiza, 1675
Spirogyra spp., 167, 511, 1030, 1033, 1677
Spondianthus prenssii, 138
Sporobolus diander, 1625
Sporobulus indicus, 1625
Sporobolus poiretti, 1328
Squash, see *Cucurbita pepo*
Stachys sp., 1072
Stratiotes sp., 507

Stellaria graminea, 1549
Stellaria media
competition, 1353
control, recommendations, 1260
chemical
acetic acid, 2-benzothiazolyl-oxy-, 1109, 1116
ametryne, 670, 911, 931
amitrole, 327
amitrole-T, 327
atrazine, 474, 706, 729, 898, 910, 1233, 1323, 1507
benzoic acid, 2-methoxy-3,6-dichloro-, 330, 333, 334
benzoic acid, 2-methoxy-3,5,6-trichloro-, 330
benzonitrile, 3,5-di-iodo-4-hydroxy-, 1818
calcium cyanamide, 337, 383
CDAA-T, 898
CDEC, 657, 998, 1233
chloralchloracetamide, 380
chloramben, 327, 328, 329, 437, 699, 956, 1233
chloroxuron, 459
chlorpropham, 364, 699, 956, 995, 998, 1109, 1562
2,4-D, 322, 998
dalapon, 7
2,4-DB, 322, 330
2,4-DEP, 725, 1233
2,4-DES, 998
di-allate, 328, 380
dichlobenil, 657
dichlorprop, 322, 329, 330, 333, 336
dicryl, 340, 699, 969, 970
dinoseb, 322, 364, 383, 441, 657, 670, 911, 998, 1524
diphenamid, 65, 725
diquat, 383, 981, 991
disulphide, bis(ethyl xanthogen), 63
diuron, 474
DMPA, 1233
DNOC, 77, 1604
endothal, 925, 926, 1205
EPTC, 706, 998, 1233
ether, 2,4-dichlorophenyl-4-nitrophenyl, 1109
fenoprop, 329, 986, 1233
ipazine, 670, 699, 1233
linuron, 400, 459, 725, 914
MCPA, 322, 333, 332, 334
MCPB, 322
mecoprop, 324, 329, 628, 986
monolinuron, 459, 914
monuron, 706
naptalam, 327
neburon, 474, 998
oil, 1567
paraquat, 424, 981, 991
PCA, 378
PEBC, 725, 925
pentanamide, *N*-(3,4-dichlorophenyl)-2-methyl, 699, 1233
phthalate, dimethyl 2,3,5,6-tetrachlorotere-, 722
prometryne, 330, 443, 657, 670, 898, 956, 1568
propazine, 699, 725, 970, 1567
propham, 364, 925
simazine, 7, 80, 474, 481, 706, 898, 907, 910, 1233, 1323, 1507, 1524, 1604

Stellaria media, control, chemical—*cont.*
simetryne, 931
SMA, 894
solan, 657, 670, 956, 969, 970, 1247
TCA, 380, 911
tri-allate, 380
triazine, 2-methylthio-4-methylamino-6-isopropylamino-1,3,5-, 931, 932
trietazine, 657, 670, 910
trifluralin, 1111
cultural, 7
plastic mulch, 998
Finland, weed of cereals, 1072
host to virus yellows, 917
seeds in grain, 618
soil and growth, 263
Sweden, distribution, 1353
Stenotaphrum secundatum (St. Augustine grass), 82, 713, 1588
Stipa falcata, 1687
Straphonoma pseudocola, 138
Strawberry, see *Fragaria* sp.
Striga spp., 1108, 1376
Striga asiatica, 1764
Striga hermonthica, 1079
Strombosia pustulata, 138
Sudan grass, see *Sorghum vulgare* var. *sudanense*
Sugar beet, see *Beta vulgaris* var. *vulgaris*
Sugar cane, see *Saccharum officinarum*
Sunflower, see *Helianthus annuus*
Swede, see *Brassica napus* var. *napobrassica*
Sweet potato, see *Ipomoea batatas*
Symphoricarpos spp. (crop), 80
Symphoricarpos spp., 1178
Symphoricarpos occidentalis, 1027, 1229
Symphoricarpos orbiculatus, 750, 1646
Syringa spp. (lilac), 80, 457, 1577, 1581

Tagetes spp. (crop), 76
Tagetes minuta, 110, 1506, 1538
Tamarix spp., 1272
Tamarix pentandra, 750, 1024, 1304, 1759
Tanacetum vulgare, 1551
Taraxacum spp., 58, 1050, 1177
Taraxacum officinale
control, recommendations, 1260
chemical
ametryne, 931
benzoic acid, 2-methoxy-3,6-dichloro-, 87
borate, 1049
2,4-D, 87, 1049, 1273
2,4-DB, 423, 947, 1049
dalapon, 1273
dichlobenil, 1272, 1273
dinoseb, 947
diphenamid, 976
diuron, 100, 1272
fenoprop, 87, 423, 686
MCPA, 87
MCPB, 947
mecoprop, 986
simazine, 100, 1272

Taraxacum officinale, control, chemical—*cont.*
simetryne, 931
2,3,6-TBA, 87, 1049
triazine, 2-methylthio-4-methylamino-6-iso-propylamino-1,3,5-, 931
extract from root, 807
Taxus spp. (yew)
weed control, chemical
amitrole, 709
atrazine, 458, 709
CDEC, 456, 458, 694
chloramben, 458
chlorpropham, 80, 456, 457, 458
2,4-DEP, 456
2,4-DES, 456
dinoseb, 456
diuron, 80, 457
EPTC, 456, 458
naptalam, 456
neburon, 80, 456
OMU + BiPC, 80
simazine, 80, 135, 456, 457, 458, 709
weed control, cultural, 135
Tephrosia vogelii (crop), 490
Tetracera scandens, 1626
Thelypteris sp., 471
Themeda quadrivalvis, 180
Themea villosa, 1625
Theobroma cacao (cacao)
weed control, chemical, 101, 102, 103, 111, 491
cultural, 1291
Thlaspi arvense
competition, 1353
control, chemical
ametryne, 670
CDAA, 39, 45
CDEC, 45, 657
chloramben, 39, 45, 692, 699
chlorpropham, 45, 699
2,4-D, 891
dalapon, 45
dichlobenil, 657
dicryl, 699, 969, 970
dinoseb, 39, 45, 657, 670
DMPA, 45, 63
EPTC, 45
ipazine, 670, 699
pentanamide, *N*-(3,4-dichlorophenyl)-2-methyl, 699
prometryne, 443, 657, 670, 1568
propazine, 699, 970
SMA, 45
solan, 657, 670, 969, 970
TCA, 45
trietazine, 657, 670
seeds, 802
Sweden, distribution, 1353
Thuja spp. (arbor vitae)
weed control, chemical
atrazine, 458, 1273
chlorpropham, 80, 741
dalapon, 458
dimexan, 741
diuron, 80, 1581
DNOC, 741
neburon, 80, 1273
pentanamide, *N*-(3,4-dichlorophenyl)-2-methyl, 458
propazine, 458, 1273
propham, 741
simazine, 76, 80, 458, 1581

Tigridia spp. (crop), 1556
Tobacco, see *Nicotiana tabacum*
Tolpis spp., 1050
Tomato, see *Lycopersicon esculentum*
Toxicodendron quercifolium, 752
Tragopogon pratensis, 1549
Tragus berteronianus, 535
Tribulus terrestris
biology, 1058
control, biological, 813, 1330
biological, 813, 1330
chemical, 203, 885, 1058, 1608, 1714
cultural, 34
India, distribution, 1058
Trichilia heudelotii, 138
Tricoscypha arborea, 138
Trifolium spp. (crop), 5, 87, 330, 571, 1549
Trifolium spp., 41, 926, 1260
Trifolium agrarium, 89
Trifolium hybridum (alsike clover), 947, 1178, 1548
Trifolium hybridum, 1548
Trifolium incarnatum (crimson clover)
Trifolium pratense (red clover)
competition, 771
desiccation, 1548
weed control, chemical
ametryne, 339
amitrole, 339
amitrole-T, 339
barban, 339
chloralchloracetamide, 339
chloramben, 339
chlorpropham, 339
2,4-D, 947, 1178, 1222
2,4-DB, 56, 60, 947
2,4-DEP, 339
di-allate, 339
dichlobenil, 339
dichlorprop, 56
dicryl, 339
dinoseb, 340, 947, 1548
diuron, 339
DNOC, 947
endothal, 1548
EPTC, 339
fenac, 339
linuron, 339
MCPA, 339, 947, 1178, 1222
MCPB, 56, 339, 340, 426, 947, 1222
monolinuron, 339
naptalam, 339
PEBC, 339
prometryne, 339
propanil, 339
solan, 339
simetryne, 339
TCA, 339
triazine, 2 - chloro - 4 - allyl - amino - 6 - isopropylamino - 1,3,5-, 339
Trifolium pratense, 418, 1548
Trifolium repens (white clover)
desiccation, 1548
weed control, chemical
2,4-D, 947, 1178, 1222
dalapon, 411
2,4-DB, 947
dinoseb, 947, 1548
DNOC, 947
endothal, 1548
fenoprop, 986
Trifolium repens (white clover), weed control—*cont.*
MCPA, 947, 1178, 1222
MCPB, 426, 947, 1222
mecoprop, 1048
paraquat, 59, 411
Trifolium repens, 881, 930, 964, 1548, 1562
Trifolium repens var. *latum* (ladino clover), 56, 60
Trifolium striatum, 1224
Trifolium subterraneum (subterranean clover), 948, 1903
Triodia pungens, 213
Tripleurospermum maritimum,
control, chemical, 341, 527, 624, 1568, 1818
seeds, 802
Tripleurospermum maritimum spp. *inodorum*
control, chemical
ametryne, 329, 931
chloramben, 328
dichlorprop, 336
endothal, 41
mecoprop, 1048
prometryne, 329
propham, 41
simetryne, 931
triazine, 2-methylthio-4-methyl-amino - 6 - isopropylamino - 1,3,5-, 931
Tripsacum laxum, 1625
Trisetum flavescens (yellow oatgrass), 428, 1547
Triticum spp. (wheat)
competition, 21, 192, 618, 780, 805, 1358, 1730
weed control, chemical
allyl trimethylammonium bromide, 1407
ametryne, 329, 330, 339
amitrole, 339, 895
amitrole-T, 339, 942
atrazine, 898, 1497
barban, 23, 331, 338, 339, 627, 629, 631, 632, 634, 635, 891, 892, 1042, 1044, 1497, 1499, 1505
benzoic acid, 2-methoxy-3,6-dichloro, 329, 330, 334, 335, 631, 1619
benzoic acid, 2-methoxy-3,5,6-trichloro-, 330, 631, 1619
benzoic acid, trichloro-, 335
benzonitrile, 3,5 - di - iodo - 4 - hydroxy-, 1818
carbamate, *t*-butyl di-*n*-propyl thiol-, 571
carbamate, α - carbo(2,4 - dichlorophenoxyethoxy) - ethyl-N-phenyl-, 1044
carbothiolate, ethyl - 1 - hexa - methyleneimine-, 1812
calcium cyanamide, 337, 340, 630
CDAA-T, 898
chloralchloracetamide, 339
chloramben, 327, 328, 329, 339, 1506, 1619
2 - chloroethyl - trimethyl - ammonium chloride, 896, 1359, 1407
chlorpropham, 339
2,4-D, 322, 618, 631, 891
Triticum spp. (wheat)—weed control—*cont.*
dalapon, 769, 895
2,4-DB, 322, 330, 331, 894
2,4-DEP, 339
di-allate, 331, 339, 340, 621, 625, 626, 629, 891, 1043, 1359
dichlobenil, 339, 340, 624
dichlorprop, 322, 329, 330, 336
dicryl, 330, 339
dinoseb, 340
diquat, 1865
diuron, 339, 1359
DNOC, 340
EPTC, 339, 1619
fenac, 339, 1506
fenoprop, 329, 780, 1051
linuron, 339
MCPA, 322, 331, 334, 335, 337, 338, 339, 340, 618, 780, 889, 894
MCPB, 339
mecoprop, 322, 323, 329, 331, 618, 780, 894
naptalam, 328, 339
OMU + BiPC, 340
paraquat, 1865
PCA, 835
PEBC, 339
prometryne, 329, 330, 339, 898, 1497
propanil, 339
propazine, 328
simazine, 323, 337, 340, 616, 895, 1359, 1496
simetryne, 339
SMA, 894
solan, 339
2,4,5-T, 335
2,3,6-TBA, 330, 331, 337, 338, 340, 618, 780, 894
TCA, 339
tri-allate, 621, 625, 626, 629, 1043
triazine, 2-chloro-4-allylamino-6-isopropylamino-1,3,5-, 339
weed control, cultural, 1504
plastic mulching, 1619
Italy (Catania) weed association, 1741
root extracts from weeds, effect of, 807
Triticum aestivum, 190
Trollius spp. (crop), 1580
Tsuga spp. (hemlock)
weed control, chemical
atrazine, 457, 458
CDEC, 456
chlorpropham, 456, 457, 498
dalapon, 115
2,4-DEP, 456
2,4-DES, 456
dinoseb, 456
diuron, 498
EPTC, 456
naptalam, 456
neburon, 456
simazine, 130, 456, 457, 458, 498
Tulipa spp. (tulip), 711, 981, 982, 1556
Tulipa breyniana, 1337
Turnip, see *Brassica rapa*
Tussilago farfara
control, chemical, 41, 323, 780, 1051

Tussilago farfara——*cont.*
ecology, 228
Finland, weed of spring cereals, 1072
Typha spp., 1033, 1515, 1658, 1659, 1662
Typha angustifolia, 1032
Typha latifolia
control, chemical, 188
amitrole, 506, 509, 1031, 1032
2,4-D, 509, 1032
dalapon, 506, 1031, 1032
endothal, 173
erbon, 1031
fenoprop, 173
oil, 1031
propanil, 35
TCA, 509

Ulex spp., 128
Ulex europaeus,
control, chemical, 115, 324, 505, 1025
cultural, 953
description, 945
Ulmus spp. (crop), 750, 1273
Ulmus spp., 204, 1634, 1641, 1646, 1651
Ulmus alata, 152, 1638, 1651
Urochloa spp., 535
Urtica spp., 1282, 1480, 1551
Urtica dioica, 1577
Urtica urens
control, chemical
atrazine, 474
calcium cyanamide, 1567
chloramben, 45, 692, 956
chloroxuron, 956
chlorpropham, 956
dalapon, 45
dinoseb, 45
diuron, 474
DNOC, 1567
endothal, 41, 926
EPTC, 45
ether, 2,4 - dichlorophenyl - 4 - nitrophenyl, 1109
linuron, 698
monolinuron, 698
neburon, 474
oil, 698
OMU + BiPC, 698
prometryne, 443, 698, 956
propazine, 1567
propham, 41
simazine, 474
solan, 956, 1247
TCA, 45
triazine, 2-methylthio-4-methylamino - 6 - isopropylamino - 1,3,5-, 932
Utricularia spp., 175, 510, 761, 1674
Utricularia purpurea, 510, 762
Utricularia vulgaris, 167

Vaccinium sp. (blueberry), 8, 615, 1595, 1596, 1597
Vaccinium myrtillus (bilberries), 475
Vaccinium myrtillus, 148, 214
Vaccinium oxycoccus (cranberry), 471
Valerianella locusta var. *olitoria* (lamb's lettuce), 691
Vallisneria spp., 167
Vallisneria americana, 516
Vernonia baldwinii, 1697
Veronica spp. (crop), 1580
Veronica spp.
control, chemical
ametryne, 931
benzoic acid, 2-methoxy-3,6-dichloro-, 334
chloramben, 367, 474
chloroxuron, 459
dinoseb, 441
diquat, 981
diuron, 93, 911
endothal, 926
ether, 2,4 - dichlorophenyl - 4 - nitrophenyl, 1109
linuron, 367, 459, 911
MCPA, 334
mecoprop, 628
monolinuron, 459
monuron, 93
OMU + BiPC, 377
paraquat, 981
PCA, 377
prometryne, 443
simazine, 481
simetryne, 931
triazine, 2,4-bis(3-methoxypropylamino)-6-methylthio-1,3,5-, 367
triazine, 2 - methylthio - 4 - methylamino - 6 - isopropylamino-1,3,5-, 931
Veronica chamaedrys, 336
Veronica filiformis, 1544
Veronica hederifolia, 432, 630
Veronica peregrina, 976, 1260
Veronica persica, 41, 380, 692, 879, 925
Vetch, see *Vicia sativa*
Viburnum spp. (crop), 80, 82, 1582
Viburnum spp., 1639
Vicia spp., 80, 323, 474, 1112, 1323
Vicia faba (field bean, broad bean)
desiccation, 428, 1548
disease, 1371
host to *Orobanche*, 815, 816
weed control, chemical
ametryne, 974
atrazine, 907, 974, 1521
chloramben, 692
chlorpropham, 1480, 1481, 1562
desmetryne, 974
di-allate, 432
dinoseb, 432, 1480, 1521
diuron, 1480, 1562
DNOC, 1481, 1521
ipazine, 974
MCPA, 1521
MCPB, 1521
monolinuron, 432, 698, 1480
monuron, 698
neburon, 432
prometryne, 698, 907
propazine, 974
simazine, 191, 907, 974, 1521, 1562
simetryne, 698, 974
triazine, 2 - chloro - 4 - isopropylamino - 6 - (3 - methoxypropylamino) - 1,3,5-, 974
triazine, 2 - methylthio - 4 - isopropylamino - 6 - methylamino-1,3,5-, 698
trietazine, 974
Vicia hirsuta, 498, 802, 1547
Vicia sativa (vetch), 428, 915, 1548
Vicia sativa, 190, 544, 618
Vigna sinensis (cow pea), 101, 510, 1203, 1566
Vinca spp. (crop), 79, 80, 81
Vinca major, 1025
Viola spp. (pansy), 711, 1255, 1577
Viola spp., 334, 1072, 1353
Viola arvensis, 17, 80, 498
Viola tricolor, 931
Viscum album, 241, 242, 243,264
Vitex micrantha, 138
Vitis spp., 1646
Vitis vinifera (grape)
drift damage from herbicides, 1876
weed control, chemical, 1268
recommendations, 472
amitrole, 727, 1304, 1598
atrazine, 473, 728
chlorpropham, 1598
2,4-D, 95
dalapon, 1599
diquat, 96
diuron, 728, 1598
DNOC, 473, 1598
fenuron, 1599
linuron, 1254
monolinuron, 1254
monuron, 1598, 1599
paraquat, 96
potassium cyanate, 1598
simazine, 473, 727, 728, 1267, 1598, 1599
TCA, 473, 1598
weed control, cultural, 1267
Vulpia spp., 1224

Water melon, see *Citrullus vulgaris*
Watsonia bulbillifera, 195
Wedelia asperrima, 799
Weigela spp. (crop), 76, 80, 459
Wolffia spp., 511, 1033, 1677
Wolffia arrhiza, 1030

Xanthium spp., 35, 883, 1201, 1210
Xanthosoma sagittifolium (tannia), 102, 491
Xylopia gilbertii, 153

Zannichellia palustris, 173, 1666
Zea mays (sweet corn)
weed control,
recommendations, 689
chemical,
atrazine, 63, 354, 435, 643, 690, 1232, 1245
carbamate, *t*-butyl di-*n*-propyl thiol-, 571
CDAA-T, 643, 690
2,4-D, 63, 435
dalapon, 354
2,4-DEP, 354
dichlobenil, 354, 690
dinoseb, 32, 63, 354, 435, 690, 1245
diuron, 354
EPTC, 5, 643
fenac, 690
ipazine, 63
linuron, 883, 1232
PEBC, 354

Zea mays (sweet corn), weed control, chemical—*cont.*
phthalate, dimethyl 2,3,5,6-tetrachlorotere-, 354
simazine, 63, 354, 435, 690, 1245
swep, 5
trietazine, 354
Zea mays (maize)
competition, 800, 1752
minimum tillage, 27, 28, 29, 346, 353, 897, 1182, 1183, 1184
residues of herbicides, 628
resistance to simazine, 258, 1763
translocation of herbicides, 566
weed control, 106
recommendations, 1480, 1483
summary of research, Southern Weed Conf., 1895
chemical, 638
acetic acid, 2-methoxy-3,6-dichlorophenyl-, 1108
aerial application, 1881
ametryne, 884
amitrole, 1183
amitrole-T, 352, 930
atrazine, 3, 9, 11, 29, 30, 31, 32, 178, 321, 340, 347, 348, 352, 353, 356, 628, 639, 640, 641, 642, 644, 645, 648, 885, 897, 965, 1046, 1183, 1185, 1186, 1235, 1507, 1509, 1510, 1511, 1549, 1680
benzoic acid, 2-methoxy-3,6-dichloro-, 645, 1186, 1188, 1716
benzoic acid, methyl dichloro-, 644
calcium cyanamide, 348
carbamate, *t*-butyl di-*n*-propyl thiol-, 571
carbamate, ethyl ethyl-*n*-butyl thiol-, 355
Zea mays (maize), weed control, chemical—*cont.*
carbamate, *n*-propyl-di-*n*-propyl thiol-, 355
carbamate, 2,3,6 - trichloro - benzyl di - isopropylthio-, 1864
CDAA, 9, 357, 891
CDAA-T, 357, 884, 1046, 1186, 1235
CDEC, 891
2,4-D, 9, 31, 32, 357, 639, 642, 645, 646, 647, 649, 1186, 1188, 1486, 1509
dalapon, 32, 348, 352, 930, 1183, 1680
2,4-DEP, 642
di-allate, 1046
dichlobenil, 32, 640, 1188
dicryl, 32
dinoseb, 32, 340, 640, 647, 1235, 1510
diphenamid, 937
diuron, 11, 640, 885
DNOC, 340, 347, 647
EPTC, 5, 9, 355, 356, 642, 648, 885, 1045, 1186, 1187, 1235, 1492
erbon, 1188
fenac, 32, 348, 351, 352, 519, 642, 1186, 1188
fenoprop, 1188
ipazine, 39
linuron, 11, 642, 645, 875, 883, 1489, 1716
MCPA, 31, 647
MCPB, 649
MH, 1183
monolinuron, 340
OMU + BiPC, 340
oxazolidine dione, 3-(*p*-chlorophenyl) - *S* - ethyl - 2,4-, 885
Zea mays (maize), weed control, chemical—*cont.*
paraquat, 930
PCA, 835
PCP, 647
PEBC, 32, 355, 642, 648
phthalate, dimethyl 2,3,5,6-tetrachlorotere-, 1186
prometryne, 965
propazine, 347, 352
propham, 1046
simazine, 3, 9, 11, 30, 32, 178, 191, 347, 348, 352, 639, 640, 641, 642, 644, 885, 960, 965, 1183, 1186, 1507, 1509, 1510
simetryne, 884
swep, 5
sulphonamide, *N*(*β*-*O*-*O*-di-isopropyldithiophosphoryl-ethyl(benzene)-, 1812
2,3,6-TBA, 640, 644
TCA, 348
tri-allate, 1046
triazine, 2,4-bis(3-methoxy-propylamino) - 6 - methyl-thio - 1,3,5-, 642, 645
triazines, 434
trichlorobenzyl chloride, 1188
trietazine, 347
control,
flaming, 32, 1511
plastic mulching, 1184
host to *Striga*, 1763
Italy, weeds, 1740
physiological effect, growth regulator, 1397, 1403, 1412, 1423, 1796
Zinnia spp. (zinnia), 76, 1098
Zingiber officinale (ginger), 102
Zizania latifolia, 1025
Zizyphus nummularia, 34
Zoisia spp. (zoisia), 89, 713, 1588
Zygadenus spp., 687
Zygadenus fremontii, 954